



HETERO DRUGS LIMITED, UNIT – VI

N. NARASAPURAM, NAKKAPALLI (M); VISAKHAPATNAM (DIST)

COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE

NO. J-11011/398/2010-IA II (I) DATED 10TH SEPTEMBER 2012

EC COMPLIANCE PERIOD – JAN-2017 TO JUNE-2017

A. Specific Conditions

S. No	Description of Condition	Compliance Status
i.	All the specific conditions and general conditions specified in the environmental clearance letter accorded vide ministry no. J-11011/253/2003-la.II (I) dated 22 nd September, 2006 shall be implemented.	All conditions of Environmental Clearance letter accorded vide ministry no. J-11011/253/2006-la.II (I) dated 22 nd September, 2006 have been implemented. Compliance report to the earlier EC has been submitted earlier to RO,
ii.	National Emission standards for organic chemicals manufacturing Industry issued by the ministry vide G.S.R.608 (E) dated 21 st July, 2010 and amended time to time shall be followed by the unit.	National Emission Standards are being followed. At present Emissions are being regularly monitored internally, Third party and also installed 03 No's of Continuous Ambient Air Quality Monitoring System in the premises for monitoring emissions
iii.	Permission and recommendation shall be obtained from the state forest department regarding the impact of the proposed expansion on the surrounding reserve forests (2 Nos.)	Complied with. There is no reserve forest in the surrounding area.
iv.	Multi-cyclone followed by bag filter shall be provided to the boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines.	Complied with. Multi cyclone followed by Bag filter is installed for Boilers to control the emissions. Stack Height is as per the CPCB/APPCB guidelines. ESP has been provided for our newly installed Boiler of 45 TPH Capacity.
v.	Adequate scrubbing system shall be provided to the process vents to control process emissions. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters.	Complied with. Adequate scrubbing system has been provided to the reactors where acidic reactions are being carried. List of scrubbers installed is enclosed as Annexure –I . In house regular monitoring of the scrubbers is being carried and records are being maintained.
vi.	Ambient air quality data shall be controlled as per NAAQES standards notified by the ministry vide G.S.R. No. 826(E) 16 th September, 2009. The levels of PM ₁₀ , SO ₂ , NO _X , CO and VOC shall be monitored in the Ambient air and emissions from the stacks and displayed	Complied with Installed 03 no's Continuous Ambient Air Quality Monitoring stations at site and data is being displayed at Main Gate Also Ambient air quality is being monitored



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	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 AP Pollution Control Board (APPCB)	by third party and the records are being maintained. Copy of latest report is enclosed for your ready reference at Annexure –II.
vii.	To Eliminate/reduce odour problem, the effluent before going to ETP shall be treated in stripper for removal of VOC. VOC shall be monitored in ETP area.	Complied with. Stripper has been installed before sending effluent to ETP to remove VOC. VOC is being monitored in ETP area by portable instruments and records are being maintained.
viii.	Specific VOC to be monitored for the specific solvents using proper sampling and analysis protocols.	Complied with. At present VOC is being monitored through portable meters and records are being maintained. Further the industry has installed online VOC analysers at the facility for continuous monitoring
ix.	In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions Controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emission shall conform to the limits stipulated by the APPCB	Complied with. The industry is taking all possible precautions for controlling fugitive emissions from all sources by way of: <ul style="list-style-type: none"> • Storing solvents in closed tanks with vent condensers. • Transfer of solvents & chemicals through closed pipelines. • Vents of reactor are connected to scrubbers in which acidic reactions are being carried. • Water sprinkler system to Ammonia storage & solvent storage yard. • Sprinklers have been provided in the Processing areas to suppress dust (if any) and also for firefighting purpose. Fugitive emissions are being regularly monitored and records are in place. As per the records it has been found that the emissions are well within the norms.



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<p>x.</p>	<p>For further control of fugitive emissions , following steps shall be followed:</p> <ol style="list-style-type: none"> 1. Closed handling system shall be provided for chemicals. 2. Reflux condenser shall be provided over reactor. 3. System of leak detection and repair of pump/pipeline based on preventive maintenance. 4. 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. 5. Cathodic protection shall be provided to the underground solvent storage tanks. 	<p>Complied with.</p> <ol style="list-style-type: none"> 1. All chemicals & solvents are being transferred through closed pipelines. 2. Reflux condensers have been provided over the reactors 3. Preventive maintenance of all major equipment's is in place and is being followed. 4. Acids are being transferred through closed pipeline from storage to reactors. The vents of storage tanks are connected to the scrubber. 5. There are no underground storage tanks in the factory.
<p>xi.</p>	<p>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.</p>	<p>Complied with.</p> <p>All DG sets are provided with adequate stack height as per CPCB guidelines and also provided with Acoustic Enclosures.</p>
<p>xii.</p>	<p>Solvent management shall be carried out as follows:</p> <ol style="list-style-type: none"> i. Reactor shall be connected to chilled brine condenser system. ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages. iii. The condensers shall be provided with sufficient HTA residence time so as to achieve more than 95% recovery. iv. Solvents shall be stored in a separate space specified with all safety measures. v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. vi. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. vii. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation. 	<ol style="list-style-type: none"> i. All reactors vents are connected to the Chilled brine condenser system. ii. All Reactors and solvent handling pumps are provided with Mechanical Seals. iii. All condensers are provided with sufficient HTA residence time so as to achieve maximum recovery. iv. All solvents are stored in a separate space with all safety precautions. v. Ensured double earthing for all the equipment's installed in the factory. vi. All electrical fittings inside the factory are Flame proof only. All solvent storage tanks are provided with Flame arresters. vii. All vents of low boiling solvent storage tanks have been provided with vent condensers with chilled brine circulation.



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xiii.	Total fresh water requirement from desalination plant will be 958 m ³ /day after expansion and prior permission shall be obtained from the concerned authority. No ground water shall be used.	Complied with. The industry is using water as per the permissions of AP Pollution Control Board. Complete water demand of the Industry is being met through Sea water Desalination Plant.
xiv	Trade effluent shall be segregated into high COD/TDS and low COD/TDS effluent streams. High COD/TDS shall be passed through stripper followed by MEE and agitated thin film drier (ATFD). Low TDS effluent stream shall be treated in ETP and then passed through RO system. The unit will have common effluent treatment facilities to treat the effluent generated from two units by name Hetero Labs Ltd. Unit-III and Hetero Drugs Ltd. Unit-VI in the neighbouring SEZ owned by a group company. The treated effluent shall be disposed off to marine outfall after conforming to the standards prescribed for the effluent discharge and obtaining permission from the APPCB. Water quality of treated effluent shall be monitored regularly and monitoring report shall be submitted to the APPCB. No process effluent shall be discharged in and around the project site. Sewage shall be treated in sewage treatment plant.	Complied with. All High TDS/COD effluents are being treated in Stripper, MEE and ATFD and high condensate of MEE is further treated in Bio tower followed by Dual stage aerobic treatment plant. All Low TDS/COD streams are being treated in Biological System along with condensate of MEE. Flow diagram of ETP is enclosed as Annexure – III . The treated effluent is being regularly monitored and the reports are being submitted to APPCB regularly on monthly basis. The treated effluents are being disposed into Sea in the supervision of APPCB Officials. Sewage is being treated in Sewage treatment plant and treated effluent is being reused for gardening/greenbelt development.
xv	The effluent containing solvent going to bioreactor (ETP) shall be removed by steam stripping. Unit shall ensure that no solvent enters the biological ETP; there it is toxic to the biomass.	Complied with. The industry is removing solvents from the effluents in the stripper itself. For more effective separation of solvents, the industry has installed one additional stripper in series with the existing stripper.
xvi	The treated effluent having TDS above 7000-8000 mg/lit shall be passed through separate RO. Permeate of RO shall be reused/recycled in the process.	Complied with. At present treated effluent is being discharged into the sea under the supervision of APPCB officials after treatment.
xvii	Treated industrial effluent shall be passed through guard pond. The guard pond shall have online PH, TOC analyser and flow meter and data shall be online transmitted to the APPCB website.	Complied with. The industry is passing its effluent through guard ponds and it is having online Effluent monitoring system for Flow, pH, TSS, TOC, and BOD & COD. Complete data has been connected to CPCB website.
xviii	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.	Complied with. All solvents are being stored in the Tanks and the tanks are provided with Flame arresters. Solvents are being transferred through pumps from solvent yard to Production area.



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xix	As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers.	Complied with. The industry is disposing hazardous wastes as per the guidelines of MOEF & APPCB as mentioned below. <ul style="list-style-type: none"> • Inorganic Process salts are being disposed to TSDF, Ramky, and Visakhapatnam. • organic residue and spent carbon is being sent to either TSDF or cement factory as per latest CFO conditions • Boiler ash to brick manufactures
xx	Waste organic residue having very high calorific value which is being sent to cement plant for co processing requires complete audit. The study shall include how waste are fed into the kiln and other associated problems. The study report shall be submitted to ministry's regional office at Bangalore, APPCB and CPCB within three months.	Complied with. The industry has carried audit at one cement industry and the report has already been submitted to the Ministry.
xxi	The salt from drier contains 3-4% organic matter. A study shall be carried out to treat it in a rotary kiln (above 800 ⁰ C) to remove organics and utilization of salt shall be explored. The study report shall be submitted to ministry's regional office at Bangalore, APPCB and CPCB within six months.	Complied with. The industry has initiated action for the recycling of salt in the paper industry. For the same purpose, the industry has supplied salt to some vendors and we are not getting positive feedback from the parties.
xxii	The company shall obtain authorization for collection storage and disposal of hazardous waste under the hazardous waste (management, handling& trans boundary movement) rules, 2008 and amended as on date for management of hazardous wastes and prior permission from APPCB shall be obtained for disposal of solid/hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.	Complied with. Industry obtained authorization for collection storage and disposal of hazardous waste under the hazardous waste (management, handling& trans boundary movement) rules, 2008 and amended as on date for management of hazardous wastes from APPCB.
xxiii	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.	Complied with.
xxiv	Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality becoming air borne by wind or water regime during rainy season by flowing along with the	Complied with.



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	storm water. Direct exposure of workers to fly ash & dust shall be avoided.	
xxv	<p>The company shall under take following waste minimization measures:</p> <ol style="list-style-type: none"> 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. 	<p>We are complying with the conditions mentioned</p> <ol style="list-style-type: none"> a. Having control of quantities of active ingredients. b. Using distilled solvents as raw material in processes as substitutes. c. Closed system for filling is being followed d. Closed filling into tanks/ receivers and feeding system to batch reactors is in place. e. Venting of vapours through condensers only f. Using high pressure jet pumps with hoses for cleaning.
xxvi	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.	<p>Complied with.</p> <p>The industry provided adequate fire fighting systems as per the norms by way of :</p> <ul style="list-style-type: none"> • Installing Fire hydrant network • Providing adequate no. of portable fire extinguishers • In house fire tender
xxvii	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the factories act.	<p>Complied with.</p> <p>The industry is conducting pre-employment and post-employment medical check-ups to all employees at regular intervals.</p>
xxviii	The recommendation of the study conducted by NIO should be implemented in a time bound manner.	<p>Complied with.</p> <p>All recommendations of NIO have been implemented.</p>
xxix	All the issues raised during the public hearing/consultation meeting held on 19 th May, 2011 shall be satisfactorily implemented.	Will be implemented.
xxx	As proposed, green belt shall be developed in 20 acres out of total land 60 acres. Selection of plant species shall be as per the CPCB guidelines.	<p>Complied with.</p> <p>The industry has already developed green belt in 30 acres and still it is going on. We will develop green belt as prescribed..</p>
xxxi	As for CSR Activity, two ponds near temple shall be upgraded.	<p>The industry has prepared proposals for development of two ponds near the temple. In the first phase as per the request of the villagers the industry has constructed two temples adjacent to the ponds. The development proposal includes:</p> <ul style="list-style-type: none"> • Temples construction • Green belt development around the



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		<p>pond including lawns/ flowering plants.</p> <ul style="list-style-type: none"> • Development road etc. <p>But after preparation of proposals, it came to our notice that the complete Temple has been taken over by Tirumala Tirupati Devasthanams (TTD). The budget allocated for the purpose has been diverted for other CSR activities.</p>
xxxii	<p>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.</p>	<p>Complied with.</p> <p>The industry has provided housing for labour with cooking fuel, drinking water, toilets etc. The industry has provided with Full-fledged Occupational Health Centre cum first aid Centre for the workers. Further the industry has provided two ambulances out of which one is of mini trauma type for shifting the people during any medical emergencies.</p>

B. General Conditions

S.No	Description of Condition	Compliance Status
i.	The project authorities shall strictly adhere to the stipulations made by the Andhra Pradesh State Pollution Control Board.	<p>Complied with.</p> <p>The industry is strictly adhering to all stipulated norms by APPCB</p>
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 the 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.	<p>Complied with.</p> <p>The industry is carrying all expansions with prior approval of the MoEF and won't carry out any expansions or modifications without the prior approval of MoEF</p>
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 down wind direction as well as where maximum ground level concentrations are anticipated.	Complied with.
iv.	The overall noise level in and around the plant area shall be kept well within the standards (85 dBA) by providing noise controlling measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient	<p>Complied with.</p> <p>Noise levels are being monitored regularly and are well within the norms stipulated.</p>



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	noise levels shall confirm to the standards prescribed under EPA rules, 1989 viz. 75 dBA (daytime) 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.	Complied with. Collecting rain water in the ponds created by the industry is its premises for improving ground water level in the area. The same water is being recycled for our process if required.												
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 under taken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Complied with. Trainings have been imparted to all the employees on various safety and health aspects including handling of hazardous chemicals.												
vii.	Usage of personnel protection equipments (PPEs) by all employees/workers shall be ensured.	Complied with. The industry is providing PPE's to all employees/workers working in the factory.												
viii.	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.	Complying with.												
ix.	The company shall under take all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be under taken by involving local villages and administration.	Complied with. The industry is carrying out CSR activities in the nearby villages by way of: <table border="1" style="margin-left: 20px;"> <tr><td>EDUCATION FACILITIES</td></tr> <tr><td>HEALTH CAMPS</td></tr> <tr><td>VISION CENTRES</td></tr> <tr><td>NATURAL CALAMITIES</td></tr> <tr><td>PLANTATION</td></tr> <tr><td>VILLAGE DEVELOPMENT</td></tr> <tr><td>VILLAGE INFRA</td></tr> <tr><td>WATER</td></tr> <tr><td>HERITAGE, ARTS & CLUTURE</td></tr> <tr><td>OTHER</td></tr> <tr><td>BIO DIVERSITY</td></tr> <tr><td>WOMEN EMPOWERMENT</td></tr> </table> <ul style="list-style-type: none"> • Providing safe drinking water by installing RO plants • Conducting Medical Camps • Water supply to few villages. • Construction of temples/ community halls. • School bags, Stationary etc. To all school going children in the nearby 	EDUCATION FACILITIES	HEALTH CAMPS	VISION CENTRES	NATURAL CALAMITIES	PLANTATION	VILLAGE DEVELOPMENT	VILLAGE INFRA	WATER	HERITAGE, ARTS & CLUTURE	OTHER	BIO DIVERSITY	WOMEN EMPOWERMENT
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		<p>villages.</p> <ul style="list-style-type: none"> • Providing Study material for 10th class students • Helping the public during any natural calamities etc. • Providing donations for Festivals at nearby villages. • Provided vision center for eye operations & giving spectacles in surrounding villages • Provided plants& LED lights to nearby villages. • Adopted animal as a part of biodiversity
x.	The company shall under take eco-development measures including community welfare measures in the project area for the overall improvement of the environment.	Complied with. Plan has been prepared and is under implementation. Details of CSR activities carried by the industry are attached as Annexure-IV for your information.
xi.	A separate environmental management cell equipped with full-fledged laboratory facilities shall be set-up to carry out the environmental management and monitoring functions	Complied with. The industry is having separate environmental management cell with laboratory facilities.
xii.	As proposed, the company shall earmark adequate funds towards capital cost and recurring cost 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.	Complied with.
X iii	A copy of clearance letter shall be sent by the project proponent to concerned panchayat, zilla parisad/municipal corporation, urban local body and the local NGO, if any, from who suggestions /representations, if any were received while processing the proposal.	Complied with.
xiv	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 A.P. pollution control board. A copy of	Complied with. The industry is submitting compliance report on six monthly basis to Regional Office, MoEF and APPCB.



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	environmental clearance and six monthly compliance status reports shall be posted on the website of the company.	
xv	The environmental statement for each financial year ending 31 st 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 and shall also be sent to the respective Regional Office of MOEF by e-mail.	Complied with. The industry is regularly submitting Environmental statement to APPCB before 30 th September of every year. Already applied for merging the Unit into Hetero Labs Ltd, Unit-III. Application is pending with the Ministry..
xvi	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 with in the 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 forward to the concerned regional office of the ministry	Complied with. The industry has informed public that, the project has been accorded environmental clearance by the Ministry by way of publishing in local newspapers. Copy of newspaper clippings has already submitted to your good offices.
xvii	The project authorities shall inform the regional office 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.	Already informed to concerned authorities