COMPLIANCE REPORT

ON THE CONDITIONS STIPULATED IN THE ENVIRONMENTAL CLEARANCE, ISSUED BY MINISTRY OF ENVIRONMENT AND FORESTS,

F.NO.J-11011/429/2008 - IA II (I) DATED 21ST OCTOBER, 2008

SPECIFIC CONDITIONS:

1	The effluent shall be segregated into high COD, high TDS, Low TDS, Inorganic effluent and organic effluent streams. The high TDS effluent shall be treated in Multiple effect evaporator. The distillate from the multiple effect evaporator system and condensate from the ejectors shall be treated in ETP. The inorganic effluent shall be neutralized before sending it to ETP. The treated effluent shall conform to the prescribed standards. The organic waste stream shall be incinerated in the incinerator.	The Management of the Company is conscious in maintaining pollutant free surroundings. We are in compliance with the Environmental Management Plan. We are treating all process effluents which consists of high COD, high TDS, Low TDS effluents through Stripper, MEE, ATFD, Biological Treatment plant followed by RO. Treated water is used for cooling tower make up. Inorganic solids generated from AFTD are sent to TSDF for secured landfill. The organic wastes are sent to the Authorized Cement plants for Co-processing.
2	The gaseous emissions (SO_2, NOx, VOC, NH3 and HCl) along with SPM and RSPM 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.	The gaseous emissions from process units viz HCl, SO2 are scrubbed in caustic lye scrubbers. During neutralization in scrubbers, it is ensured that the pH of the scrubbing solution is maintained above 10.0. Ammonia is scrubbed with water in primary scrubber and HCl in secondary scrubbers. In the event of failure of pollution control systems, the plant shall be stopped and shall be restarted only after rectifying the system.
3	The process emissions in the form of HCl shall be scrubbed with caustic scrubber and NH3 shall be scrubbed with water scrubber followed by caustic scrubber. The spent scrubber solution shall be sent to multiple effect evaporator.	The spent caustic from HCl, SO2 scrubber and scrubber solution from Ammonia secondary scrubber is sent to Multiple Effect Evaporators (MEE) for recovery of water. The MEE concentrate is sent to Agitated Thin Film Dryer (ATFD). The dry solids from AFTD is sent to TSDF for secured landfill.

4	The flue gases from the rotary kiln and the incinerator after cooling in a gas cooler shall be scrubbed through a caustic scrubber. The scrubbed solution shall be sent to MEE system. The particulate emissions from the 12 TPH Fluidized Bed Coal fired boiler shall be controlled by bag filter to meet the emissions standards less than 50 mg/Nm3. The gaseous emissions from the DG sets shall be dispersed through stack height as per CPCB standards. Acoustic enclosures shall be provided to mitigate the noise pollution.	As per APPCB Directions we have dismantled the Rotary kiln. We have provided ATFDs for Drying the Inorganic Solids in influents. We have provided two stage scrubber for vent condensers of ATFDs. The spent scrubber solution is sent to MEE system. Bag filter have been provided to control the emission for fluidized bed coal fired boiler to meet the CPCB standards for SPM. DG sets are provided with stacks as per CPCB norms.
5	Standards notified for pesticides unit under the Environment (Protection) Act, 1986 and amended time to time shall be followed by the Unit.	The company is following standards notified for pesticides unit under the environment (Protection) Act, 1986 and their amendments.
6	The unit shall carry out monitoring of VOC in the ambient air and data submitted to the Ministry State Pollution Control Board.	The Company has provided on line VOC monitoring system and connected to CPCB/APPCB website.
7	Chilled brine for the secondary condenser shall be installed for recovery of solvents.	For solvent recovery, secondary condensers with chilled brine circulation has been installed where ever necessary.
8	The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management and Handling) Rules, 2003 for management of Hazardous wastes and prior permission from Andhra Pradesh Pollution Control Board shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for firefighting facilities in case of emergency.	The company has obtained Authorization for collection, storage and disposal of hazardous waste from Andhra Pradesh Pollution Control Board. The authorization is valid up to 28-02-2023. Firefighting facilities are provided to meet any emergency.
9	Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by Andhra Pradesh Pollution Control Board.	To control fugitive emissions, Raw materials and intermediates are handled in closed systems consisting of fume hood with exhaust connected to scrubber. Nitrogen ($N_{2)}$ blanket is provided wherever necessary. Pollution control equipment are maintained and kept in good condition. All the stipulated parameters are monitored and the values are within the limits prescribed by Andhra Pradesh Pollution Control Board.
10	All the storage tanks shall be under negative pressure to avoid any leakages. Breathers, N_2 blanketing and condensers will be provided for	All the storage tanks are having Breather valves & N_2 blanketing has been provided.

	all the storage tanks. Closed handling systems for chemicals and solvents will be provided Magnetic seals will be provided for pumps / agitators for reactors for reduction of fugitive emissions. Chilled Brine based condensers shall be used to prevent VOC emissions. Solvent traps shall be installed wherever necessary.	All reactors and pumps are provided with Mechanical seals to avoid any leakages. Three stage condenser system has been provided with RT water, chilled water & chilled brine to prevent solvent losses. Steam jet ejectors are being replaced with more efficient Dry vacuum Pumps with exhaust condensers for better solvent recovery and to reduce fugitive emissions.
11	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 LEL indicators and Hydrocarbon detectors. Provision for immediate isolation of such equipment in case of a leakage will 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.	All Vents are connected to a vent scrubber. Leak Detection and Repair (LDAR) program is being implemented for reactor seals, pump seals, valves, flange joints etc to control of fugitive emissions. Scrubbers are provided in all production blocks. The spent scrubber solution is sent to ETP for further treatment.
12	During transfer of materials, spillages shall be avoided and garland drains be constructed to avoid mixing of accidental spillages with domestic waste and storm drains.	Separate collection pits are provided in each production block to collect any accidental spillages during transfer of materials. All spillages are washed and washings shall be admitted into effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
13	The company shall make adequate arrangement for control of odour nuisance from the plant premises.	Vent scrubbers are provided for mitigating smell problems.
14	The adequate financial provisions shall be made in the budget of the project for implementation of the above suggested environmental safeguards. Fund so earmarked shall not be diverted for any other purposes.	The funds allocated for capital and recurring expenditure are used exclusively for maintaining pollutant free environment and surroundings.
15	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	The company is drawing the services of local senior medical practitioner for carrying out the periodical health check-ups for work men. Health records are maintained.

16	The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.	Flame proof electrical fittings as per the prescribed standards are provided in process plant. Dedicated fire hydrant system is provided in the solvent storage area. Foam, CO_2, dry chemical powder extinguishers are kept at appropriate places.
17	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 chemical shall be imparted.	Training is provided to all employees handling toxic chemicals. Medical check-up before recruitment of the employee is carried out. The company is drawing the services of local senior medical practitioner for carrying out the periodical health check-ups for work men. Health records are maintained. Health center with facilities is established in the premises.
18	Usage of PPEs by all employees/workers shall be ensured.	Safety awareness training is provided to all personnel working in the factory. Personal protective equipment to all employees is provided.
19	The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).	Complied with
20	The company shall adopt waste minimization / cleaner production techniques to reduce the pollution load and action plan in this regard submitted to the Ministry.	The industry is following good manufacturing practices. Solvent losses are reduced by providing dry vacuum pump. The rejects water from RO are used in the process for washings. The condensate from MEE, ATFD, VAM are recycled to the boiler to minimize fresh water requirement. Continuous efforts of technical team to improve the process conversion have resulted in minimizing waste and toxic residues.
21	The company shall undertake rainwater harvesting measures to recharge the ground water as well as reduced consumption of water.	The company has provided rain water harvesting facility to collect water and is used to reduced fresh water requirement

22	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.	Local personnel are preferred for constructions labour. Safe drinking water, medical health care etc. shall be provided to construction labour.

GENERAL CONDITIONS:

i)	The project authorities shall strictly adhere to the stipulations of the SPCB / State Government or any statutory body.	The company is strictly adhering to the stipulations made by Andhra Pradesh Pollution Control Board in their CFE.
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.	In case of any expansion or modifications, approvals shall be taken from Ministry of Environment & Forests and Andhra Pradesh Pollution Control Board.
iii)	The project authorities shall strictly comply with the rules and regulations under the Manufacture, Storage and Import of Hazardous chemicals Rules, 1989 as amended. Authorization from the SPCB shall be obtained for collection, treatment, storage, and disposal of hazardous wastes.	The company is strictly adhering to the rules and regulations under manufacture, storage and import of Hazardous Chemicals rules. Permission for collections, treatment, storage and disposal of hazardous waste is obtained from Andhra Pradesh Pollution Control Board and the permission is valid up to 28-02-2023.
iv)	Ambient air quality monitoring stations shall be set up in the downwind direction as well as where maximum ground level concentration are anticipated in consultation with the State Pollution Control Board.	The industry is complying with ambient air quality standards. Ambient air quality parameters are monitored by MoEF&CC approved, NABL accredited labs. The ambient air quality reports are submitted to APPCB every month.
v)	For control of process emissions, stacks of appropriate height as per the Central Pollution Control Board guidelines shall be provided. The scrubbed water shall be sent to ETP for further treatment.	For control of process emissions, caustic scrubbers shall be provided. The spent scrubber solution is sent to MEE system.
vi)	The company shall undertake following Waste Minimization measures:- • Metering of quantities of active ingredients to minimize waste. • Reuse of by-products from the process as raw materials or as	• Complied • In Chlorpyriphos Plant, Acrylonitrile and Trichloro Acetyl Chloride are recovered and reused. In Fluroxypyr Plant, Ammonia and KF are recovered and reused.

	raw material substitutes in other processes. • Maximizing recoveries. • Use of automated material transfer system to minimize spillage. • Use of "Closed Feed" system into batch reactors.	• Solvent recovery in excess of 96% is achieved by using dry vacuum pump in place of steam jet ejectors. • To minimize spillage, all raw materials are handled using transfer pumps. • The raw materials and intermediates are handled in closed systems using vacuum and transfer pumps. • Powders are transferred in inert nitrogen atmosphere in closed loop through Power Transfer Systems (PTS)
vii)	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, 2003. Authorization from the SPCB shall be obtained for collections / treatment / storage / disposal of hazardous wastes.	Strictly adhering to the latest guidelines and conditions stipulated in Authorization for handling and disposal of hazardous waste by Andhra Pradesh Pollution Control Board.
viii)	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 Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	There is no source of noise pollution in our factory. The DG sets are installed in a closed area. The noise levels in the plant area are maintained within stipulated standards prescribed under EPA guide lines. Reports are enclosed.
ix)	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the environmental management and monitoring functions.	A qualified Environmental Engineer is appointed to look after environmental monitoring functions.
x)	The project authorities shall develop greenbelt in 33% of project area as per the guidelines of CPCB to mitigate the effect of fugitive emission.	The company has developed green belt all around the plant. Native plants like mango, chikku, jack fruit, neem, coconut, subabal etc have been planted with the support of District Forest Officer. High density plantation by Dr. Akira Miyawaki plantation method is being developed in the premises in 0.4 acres.

xii)	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 lease 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 Ministry's Regional office.	The company has advertised in Newspapers viz Deccan Chronicle and Andhra Bhoomi informing the public that the project has been accorded EC. Copies of advertisement were sent to your office.
xiii)	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.	Complied
	Other Conditions:	
7	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Agreed to
8	The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.	Agreed to
9	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.	Agreed to
10	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) 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.	Agreed to