

Environment clearance: Compliance status

Date:05/02/2015

A. Specific conditions

S.No.	ACTION POINTS	COMPLIANCE STATUS
1	The gaseous emissions (SO ₂ , NO _x , CO & HC) from the various process units shall conform to the standards prescribed under Environment (Protection) Rules, 1986 or norms stipulated by the SPCB whichever is more stringent. At no time, the emission level shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.	Complied: The gaseous emissions from the various process units are well below the standards prescribed by SPCB
2	Ambient air quality monitoring stations, (SPM, SO ₂ and No _x) shall be set up in the petrochemical unit in consultation with SPCB, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs. Data on VOC shall be monitored and submitted to the SPCB / Ministry's Regional Office.	Complied: Latest Continuous Ambient Air Quality Monitoring station with open path technology is installed & the monitoring data being uploaded to State pollution control board server. Imported Hydrocarbon analyzer is installed for Continuous monitoring of Methane, Non Methane and Total Hydrocarbons.
3	The company shall install online monitors for VOC measurements.	Complied: CAAQM station installed has the facility to monitor VOC in an open path scanning a path of 0.4 KM in downwind direction of the process plant. Online VOC meter also installed in Effluent Treatment Plant and continuous monitoring data is connected to DCS for reporting and alarming.
4	Measures shall be taken for installation of Un-interrupted Power Supply System and DG sets shall not be operated to reduce SO ₂ , and No _x emission. LSHS shall be substituted with Low Sulphur Oxo residue the SO ₂ emission from the LP Boiler. Waste gases from the process streams shall be used for steam generation.	Complied: Installed 2 in number UPS systems with each 2400 KVA and the DG sets are now emergency standby. LSHS is substituted with low sulphur Oxo residue thereby reducing the SO ₂ emissions considerably. Waste gases from the plant also utilized as fuel for steam generation.
5	Emissions from the boiler and from the process units shall be controlled by stacks of adequate height. The hydrocarbons shall be flared. Vents from the low pressure storage tanks shall be connected to LP flare through LP flare piping network for flaring the gases. The company shall undertake measures for control of fugitive emissions. Toxic gas detection system shall be installed.	Complied: Boiler stack of adequate height are provided. All hydrocarbon vents from pressure reliefs are connected to high pressure Flare and vents from low pressure storage tanks are connected to low pressure flare. Toxic gas detection monitors are installed in critical areas and are

		connected to DCS for reporting and alarming. Portable VOC meter is used for leak detection and rectification to eliminate any fugitive emissions. Leak detection and repair is carried periodically in all potentially Hazardous areas.																								
6	As reflected in the EIA/EMP report, there shall be no additional generation of effluent due to the proposed expansion. The effluent generation would remain same i.e., 3524 m3/d as in the existing unit. Effluent from the alcohol unit shall be stripped to reduce the organic load. The effluent after treatment and conforming to the prescribed standards shall be discharge into the sea through the common effluent canal. The domestic effluent shall be treated in the septic tank followed by soak pit.	Complied: There is no additional generation of effluent after expansion. Quantity and quality of the treated effluent are within the standards prescribed by the SPCB. Strippers two number are installed, being operated continuously before the effluents sent to ETP. This facilitated further load reduction and biological growth to the Bio-Reactor installed at ETP. Sewage treatment plant is installed for treating the domestic effluent & treated water being used for gardening.																								
7	All the standards / Norms stipulated under Environment (Protection) Act, 1986/CPCB should be met. In addition all new standards / norms that would be notified in future for petrochemical units shall be applicable for the proposed expansion unit.	Condition Noted.																								
8	Project authority shall undertake rainwater harvesting measures to recharge the ground water and also to minimize the water drawl from the reservoir and ground water.	Complied & Noted: Our plant is situated in the leased lands of Visakhapatnam Port Trust and the land is a reclaimed land. The total plant soil is saline and the water table underneath is brackish water that starts below the ground level from 2 to 3 feet. It is not possible to adopt the rain water harvesting system, but we have developed a pond inside the plant premises being utilized to collect all rain water and that will be used for emergency fire fighting.																								
9	Green belt shall be raised in 11.78 ha of the plant area to mitigate the fugitive emissions from the plant. Selection of plant species shall be as per the Central Pollution Control Board guidelines.	<table border="1"> <thead> <tr> <th>Complied:</th> <th>S.No</th> <th>Description</th> <th>Area (In Hectare)</th> </tr> </thead> <tbody> <tr> <td></td> <td>1</td> <td>Greenery b/w plant buildings</td> <td>10.8</td> </tr> <tr> <td></td> <td>2</td> <td>Lawn at administration block</td> <td>0.2</td> </tr> <tr> <td></td> <td>3</td> <td>Greenery Non-plant area</td> <td>4</td> </tr> <tr> <td></td> <td colspan="2">Total area of Greenery</td> <td>15</td> </tr> <tr> <td></td> <td colspan="2">Total company area</td> <td>30.35</td> </tr> </tbody> </table>	Complied:	S.No	Description	Area (In Hectare)		1	Greenery b/w plant buildings	10.8		2	Lawn at administration block	0.2		3	Greenery Non-plant area	4		Total area of Greenery		15		Total company area		30.35
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10	Occupational Health Surveillance of the workers should be done on	Complied:																								

	a regular basis and records maintained as per the Factories Act.	OHS being carried regularly at Occupational Health Center building inside the factory and records as per Factories Act being maintained.
11	The company shall comply with the recommendations made in the EIA/EMP/Disaster management plan.	Complied:

B. General conditions

SI.No.	ACTION POINTS	COMPLIANCE STATUS
1	The project authorities must strictly adhere to the stipulations made by the Andhra Pradesh Pollution Control Board and the State Government.	Condition complied
2	No further expansion or modernization in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Condition noted
3	At no time, the emissions shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the units, the respective unit should be immediately put out of operation and should not be restarted until the desired efficiency has been achieved.	Condition noted
4	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 should conform to the standards prescribed under EPA Rules, 1989 viz., 75 dBA (day time) and 70 dBA (night time).	Condition complied. Periodical monitoring of noise levels are being carried with hand held meter.
5	The project authorities must strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989 as amended in 2000 for handling of hazardous chemicals etc. Necessary approvals from Chief Controller of Explosives must be obtained before commission of the project.	Condition complied We have valid licenses from Chief Controller of Explosives for Naphtha, Propylene, Nitrogen, LSHS and Diesel
6	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 State Pollution Control Board must be obtained for collections / treatment / storage / disposal of hazardous wastes.	Condition complied Handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management and Handling) Rules, 2003 being done as per guidelines of state pollution control board.
7	The project authorities will provide adequate funds both recurring	Condition complied

	and non-recurring 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 should not be diverted for any other purposes.	
8	The stipulated conditions will be monitored by the Regional Office of this Ministry at Bangalore / Central Pollution Control Board / State Pollution Control Board. A six monthly compliance report and monitored data should be submitted to them regularly.	Condition complied: Compliance status in regular intervals have been submitted to the Board as per conditions in the Environment Clearance, Consent For Establishment from APPCB, Consent For Operation from APPCB
9	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 State Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at http://www.envfor.nic.in . This should 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 should be forwarded to the Regional Office.	Condition complied. Advertisement about our environment clearance was published in newspaper and that was forwarded to MoEF, Bangalore office during the same time. Enclosed herewith the copy.
10	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 commencing the land development work.	Condition complied

Photo graphs of equipment installed & Greenery developed in plant:



AAQM (Monitor)



AAQM (Emitter)



AAQM (Receiver)



VOC online



VOC meter portable



Toxic gas detector



Toxicgas Monitor (DCS)



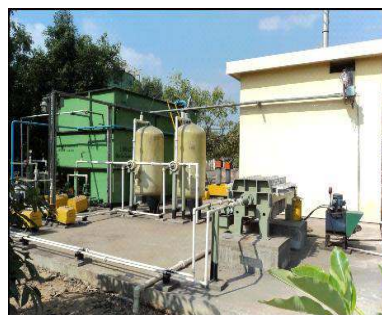
Flares (LP & HP)



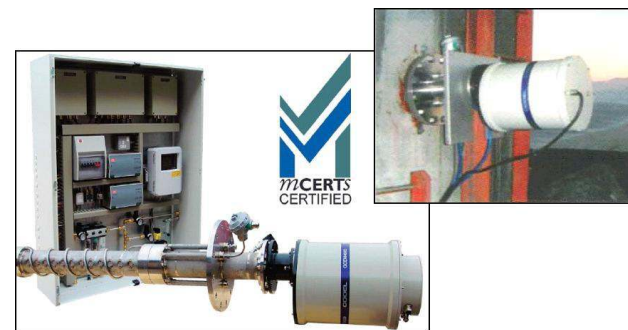
Strippers (2No's)



Bio-reactor @ETP



STP



Boilers stack On-line monitor



Hydro carbon detector in Ambient



UPS

Description	Area (in Acres)
Plant Buildings	9.10
Non Plant Buildings	28.70
Green plantation between plant buildings	26.70
Lawn at Administration Block	0.50
Green plantation outside Plant area	10.00
Total	75.00



Greenerly in plant

Green Plantation development in waste Land (Marshy & Saline):

- Development of Mangrove plantation
- Development of special plant species like Conocarpus surviving in harsh saline soil conditions



Plantation in factory