

**Modernization Project for storage of LPG and Propylene
by Mounded Storage system at Visakh Refinery**

Environmental Clearance from MoEF

Compliance Status of the conditions

A. Specific Conditions		
S. No.	Particulars	Status
1	All the safety and security systems provided in Risk Analysis Report for the Project shall be implemented. The project proponent shall also comply with all the environmental Management Plan and Risk Analysis Report submitted to the Ministry vide letter No. CEE/07/MLVR/056 dated 19 th October 2007.	Complied with.
2	There shall be no solid waste or release of pollutants.	Complied with.
3	Regular Ambient Air Quality Monitoring shall be carried out for VOC, HC and LPG besides other parameters in the Work Zone Area and ambient air in and around the Plant. The location and results of existing monitoring stations shall be reviewed in consultation with the concerned State Pollution Control Board based on the occurrence of maximum ground level concentration and downwind direction of wind. Additional Stations shall be set up, if required. It will be ensured that at least one monitoring station is set up in up-wind & in down-wind direction along with those in other directions. Data shall be submitted to MOEF, CPCB and TNPCCB.	Complied with. The refinery already has 3 continuous Ambient Air Monitoring Stations.
4	Fugitive emissions in the work zone environment of storage area shall be regularly monitored. The emissions shall conform to the limits imposed by the State Pollution Control Boards / Central Pollution Control Board.	Will be complied with.
5	There shall be no increase in the pollution load for any parameter from the expansion project.	The project being simply for change in storage type from Horton Spheres to Mounded Bullets, there is no increase in pollution load with respect to any parameter.

6	There shall be no additional water requirement for the process except service water of 5,000 KL for commissioning and testing. Provisions for appropriate storage and treatment for fire fighting water shall be provided.	Complied with.
7	Noise level will be within the approved limits of 80 dB (A). The practice of acoustic plant design shall be adopted to limit noise exposure for personnel to an 8 hr time weighted average of 90 db (A).	Complied with.
8	Green belt shall be provided to mitigate the effects of fugitive emissions all around the plant in a minimum of 33% of the plant area in consultation with DFO as per CPCB guidelines.	This is a risk mitigation project with no incremental pollution load. Only the mode of LPG/Propylene storage is being converted from Horton Spheres to Mounded Bullets without any change in the storage capacity. As this is in the existing refinery, a fresh green belt is not practical due to space limitations. However, tree plantation and greenery development has been carried out around the new storage area to the extent possible.
9	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.	Rainwater harvesting facility provided for the run-off from the mounds.
10	The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. Necessary approvals from Chief Controller of Explosives must be obtained before commission of the expansion project. Requisite On-site and Off-site Disaster Management Plans will be prepared and implemented.	Complied with. The existing refinery Disaster Management Plan will be suitably modified within three months of commissioning to reflect the change in storage type from Horton Spheres to Mounded Bullets.
B. GENERAL CONDITIONS		
1	The project authorities must strictly adhere to the stipulations made by the concerned state Pollution Control Board (SPCB) and the State Government.	Complied with.

2	No further expansion or modifications in the plant shall be carried out without prior approvals of the Ministry of Environment and Forests.	Noted.
3	The project authorities shall strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules 1989 and as amended from time to time. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. shall be obtained. All Transportation of Hazardous Chemicals shall be as per the MVA.	Will be complied with. All approvals obtained.
4	On-site and Off-site emergency preparedness plans shall be prepared. Approval from the nodal agency shall be obtained before commissioning the project.	The existing refinery Disaster Management Plan will be suitably modified within three months of commissioning to reflect the change in storage type from Horton Sphere to Mounded Bullets.
5	The overall noise levels in and around the plant area shall be limited within the prescribed standards 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).	Will be complied with.
6	Proper House keeping and adequate occupational health programs shall be taken up. Regular Occupational Health Surveillance Programme for the relevant diseases shall be carried out and the records shall be maintained properly for at least 10 years. Sufficient preventive measures shall be adopted to avoid direct exposure to emission and other Hydrocarbons etc.	Will be complied with. A comprehensive Occupational Health monitoring program exists in the refinery.
7	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.	Will be complied with.
8	Usage of PPEs by all employees / workers shall be ensured.	Will be complied with.
9	A separate environment management cell with full fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of a Senior Executive.	Environment Management Cell and laboratory facilities exist in the refinery.
10	The project authorities will provide adequate funds	Will be complied with.

	both recurring 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.	
11	The project proponent shall have a scheme for social upliftment in the surrounding villages with reference to contribution in road construction, education of health centers, sanitation facilities, drinking water supply, community awareness and employment to local people whenever and wherever possible both for technical and non-technical jobs. CSR activities will be undertaken by involving local villages and administration.	Being complied with.
12	The implementation of the project vis-à-vis environmental action plans shall be monitored by concerned Regional Office of the Ministry / States Pollution Control Boards / Central Pollution Control Board. A six monthly compliance status report shall be submitted to monitoring agencies and displayed on the Website of the Company.	Noted and complied with.
13	The Project Proponent should 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 concerned Regional office of this Ministry.	Complied with. Advertised in 'The Hindu' and 'The Eanadu' in March, 2007.
14	The date of Financial Closure and final approval of the project by the concerned authorities and the date of commencing the land development work as well as the commissioning of the project will be informed to the Ministry and its Regional Office.	Will be complied with.