

## Project Brief

Reliance Industries Ltd (RIL), Nagothane Manufacturing Division (NMD) is manufacturing variety of petrochemicals and downstream products starting from ethane/propane to EO/EG, LDPE, LLDPE etc. RIL-NMD is located within the industrial area notified by Govt. of Maharashtra near Nagothane in Raigad district of Maharashtra. The proposed project location is about 120 kms from Bombay on the Bombay-Goa National Highway, NH-17. The nearest railways station is Nagothane which is at a distance of ~8.4 km & the nearest airport is Mumbai Airport which is at a distance of ~120 km.

NMD-RIL is proposing to debottleneck the existing plants such as Ethylene oxide, Ethylene Glycol, LLDPE and expand the gas cracker & CPP along with change of fuel in the CPP. These plants will be located within the existing NMD complex spread over 744 Ha.

Gas Cracker plant is the mother plant of RIL-NMD which produces Ethylene and Propylene as a product and the same is used as a raw material in downstream plants. At present, major feed stocks for cracker are C2C3 (ethane propane mix) from ONGC and propane is either imported or from RIL refinery at Jamnagar. In view of Shale gas ethane availability and reduction in C2/C3 supply from ONGC it is planned to create flexibility of cracking ethane in the process and increase existing plant capacity. Debottlenecking of EO/EG, LLDPE & Hexene-1 Plants are proposed in view of extra ethylene availability post Shale gas Ethane cracking in Gas Cracker.

The NMD complex has an integrated utilities system which includes plants for the treatment and distribution of raw water, steam/condensate, cooling water, DM water, fire water, compressed air, nitrogen and oxygen, hydrogen, fuel gas and power plant. Other offsite facilities includes the storage, receipts & transfer, loading and unloading of chemicals, products and by-products in the form of liquid and gaseous hydrocarbon.

In the proposed project there is no expansion/modernization is envisaged in the utilities except the Captive Power Plant wherein, an addition of 15 MW by increasing the capacity GTs along with use of ethane as fuel is envisaged. At the CPP, provision will be made for firing varied type fuel such as lean gas, off gas, mix oil, LSHS, HSD and ethane.

The proposed expansion & debottlenecking at NMD shall not add any additional load on the regional environment setting. In the proposed project, natural gas is used as fuel for combustion which is a cleaner fuel. Hence, emission of SO<sub>2</sub> & PM will be negligible due to burning of fuel. NO<sub>x</sub> emission will be generated from the GC furnaces as well as CPP due to combustion of fuel will be controlled and within stipulated standards. However, adequate measures shall be place to mitigating impacts on ambient air quality during the project operations. In the proposed project an additional furnace shall be installed in the GC plant with a stack of ~ 38 m in height to disperse the emissions adequately. No adverse environmental impact is envisaged due to withdrawal of water by NMD. The total water requirement s ~ 2,700 m<sup>3</sup>/d which will be met by MIDC. The wastewater generated from the proposed project will be treated at the existing wastewater treatment plant. The solid waste generated from the shall be disposed in line with the HWM rules. The existing green belt spread in an area of ~298 Ha shall be strengthen during this proposed project.

Existing manpower of ~ 1794 personnel would be used during the proposed project. The cost of the proposed project is ~Rs. 1058 crores and is expected to be commissioned by the end of 2016.