

Production of Medical Oxygen from modified Industrial Nitrogen Plants.

30 industries identified, efforts underway to make them operational at the earliest.

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Considering the COVID-19 pandemic situation and to further augment availability of oxygen for medical purposes in the country, the Central Government had asked Central Pollution Control Board (CPCB), which has comprehensive database of industrial units, to identify the industries having spare nitrogen plants and explore the feasibility of converting of existing Nitrogen plants to produce oxygen. CPCB with the help of State Pollution Control Boards (SPCBs) have identified such potential industries, wherein existing Nitrogen generation plants may be spared for production of oxygen. Consultation have been held with potential industrial units and experts.

About 30 industries have been identified, and efforts have begun to modify nitrogen plants for the production of medical oxygen. Some of these plants can be shifted to nearby hospitals for supplying oxygen and some plants, where it is not feasible to shift the plants, can produce oxygen on-site.

M/s UPL Ltd converted one 50 Nm³/hr capacity Nitrogen plant to produce oxygen using Zeolite Molecular Sieve, and installed it at L G Rotary Hospital, Vapi (Gujarat). This plant is producing 0.5 ton/day oxygen and is operational since 27.04.2021. UPL Ltd. is also under process of conversion of three more plants. On conversion to oxygen plants, these plants will be installed at hospitals in Surat and Ankaleshwar.

In the existing nitrogen plants, replacing Carbon Molecular Sieve (CMS) with Zeolite Molecular Sieve (ZMS) and few other changes such as installation of oxygen analyzer, change in control panel system, flow valves etc., oxygen for medical use can be produced. With the availability of ZMS, such modified plant can be set-up in 4-5 days while installation of new oxygen plant may take minimum 3-4 weeks.

Oxygen produced in on-site plants has to be compressed and filled in cylinders/special vessels using high pressure compressor for transporting to hospitals. Facilitation is being provided to these industries for completion of work at the earliest.



**Modified Nitrogen plant to generate medical Oxygen, installed by M/s. UPL Ltd. at L
GRotaryHospital,Vapi(Gujarat),operationalsince 27.04.2021**

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