

**TO ALL SMS MEMBERS/ CHIEF DIRECTORATES/ DIRECTORATE/ REGIONAL/ DISTRICT OFFICES /  
SUB-STRUCTURE/ ALL FACILITY MANAGERS**

**CIRCULAR H 225/2020: OXYGEN PRODUCTION, DISTRIBUTION, AND USAGE**

The demand for Oxygen from Afrox's Kuils River Plant has reached 50 Tons per Day on the 18th of December 2020.

The plant is providing oxygen to our bulk tank installations, bank cylinders, and portable cylinders, but also to some of the health facilities in the private sector, the military hospital, and the Northern Cape provincial health facilities.

Afrox has confirmed that 50 Tons per day is the current maximum capacity of the daily production. Afrox is busy with a plan for adding capacity: using the oxygen from the industrial clients, and getting additional oxygen from other province plants. Additional road tankers are also brought to the province.

However, this must be managed carefully as the problem is not the availability of oxygen, but rather the technology limitation of the installations and the logistics around the use of cylinders.

WCGH is in a situation where we need to get the message to every facility that we need to be more vigilant with:

1. The monitoring of quantities of oxygen being administered.
2. The use of HFNO devices: these devices have the capacity to provide 60 l/min of oxygen, and when attached to cylinders, they require 14 cylinders in a 24 hour period. Afrox discourages the use of HFNO in facilities where no bulk tanks and reticulation is present, mainly due to the logistical challenges. When this is not possible, the recommendation is ensure continuous engagement with Afrox for the collection of the empty cylinders and distribution of filled ones.

3. Avoiding storage of excessive number of cylinders, only those ones used for back-up or in current use. Better logistical planning of oxygen cylinders, monitor stock regularly, order regularly. Very important not to keep empty cylinders on the premise or stock up filled one. The existing principal of an exchange of empty cylinders for full should be maintained as not to remove cylinders from the system. If there is proof of additional requirements i.e more empty cylinders being returned, then additional cylinders orders will be filled or additional delivers will be effected.
4. For the permanent installations, avoiding the formation of ice around the vaporisers and/or along the main reticulation, this is a serious sign of the system over-utilised (over production of oxygen gas), which could cause the system to stop functioning.
5. The portable Integrated Valve Regulator (IVR) cylinders are currently only used at Brackengate; due to the temporary function of the facility, it was decided to use this more economical option even if they do require refilling in Gauteng. Afrox is managing this with weekly trips, but by the end of January 2021 the facility in Cape Town will be able to provide such service.

The oxygen consumption for bulk tank consumers can be monitored on <http://www.doheng.co.za/> we are strongly recommend to use it. Also included on this portal is a Bulk Oxygen Calculator that facilities can use to evaluate current consumption vs plant capacity.

Afrox is available for delivery over the weekend and after hours. Contact details attached as Annexure A.

Load shedding will not affect the Afrox plant as agreed with ESKOM.

Kind regards



**DR L ANGELETTI-DU TOIT**

**CHIEF DIRECTOR: FACILITIES & INFRASTRUCTURE MANAGEMENT**

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