

**STATUS OF COVID RELATED OXYGEN ALLOCATION, SUPPLY AND  
CONSUMPTION IN PUNJAB**

**Allocation by central Government to Punjab**

- Vide allocation orders dated 15/04/2021, GoI allocated a total of 126 MT Medical Oxygen (MO) to State of Punjab, including internal production of 32 MTs. The allocation was from plants in Roorkee (14 MT), Panipat (20), Inox Barotewala Baddi (30) and Linde Dehradun (30).
- The allocation was changed vide orders dated 21/04/2021 wherein allocation to State of Punjab was increased to 136 MT (including internal production of 32 MT). The only change was increased allocation of 10 MT from Inox Barotewala Baddi.
- The allocation was revised again vide allocation order dated 24/04/2021 wherein total allocation was increased to 137 MT with details as Roorkee (15 MT), Linde Dehradun (30 MT), Inox Barotewala (60 MT) and 32 MT internal production.
- Vide allocation order dated 26/04/2021, total allocation remained the same with 20 MT allocation from Linde shifted to Panipat plant.
- Vide allocation order dated 27/04/2021, the allocation to Punjab was increased to 177 MT with additional allocation of 40 MT from Inox Bokaro.
- Vide allocation order dated 29/04/2021, in addition to the routine allocation, additional allocation of 30 MT was made from Panipat plant only for a day.
- Vide orders dated 30/04/2021, total allocation to state of Punjab was increased to 195 MT with details as Roorkee (15 MT), Linde Dehradun (10 MT), Panipat (20 MT), Inox Barotewala (60 MT), Inox Bokaro (40 MT), SAIL Bokaro Own (20 MT), Vedanta Electro steel Bokaro (30 MT). After including the internal allocation of 32 MT, the total allocation to State of Punjab is at present is 227 MT/day.
- Vide orders dated 10/5/21, total allocation to state of Punjab was increased to 215 MT with addition of 20 MT from Gujarat. After including the internal allocation of 32 MT, the total allocation to State of Punjab is at present is 247 MT/day.
- Allocation mentioned in point above is the final allocation to State as on date.

## LIFTING OF THE ALLOCATED QUOTA:

- From 22/04/2021 to 25/04/2021, Punjab could lift its total allocated quota as supply was from adjacent states only. From 27<sup>th</sup> onwards and till date, Punjab could not lift the complete allocated quota on account of various reasons.
  - 40 MT allocation from Inox Bokaro from 27<sup>th</sup> to 29<sup>th</sup> could not be made available on the said dates as tankers had to be sent by the State of Punjab which required air-force coordination and support and also tie up with the plant for settling the modus operandi. Tankers were sent on 27<sup>th</sup> itself but the supply reached after 3 days on 30<sup>th</sup> of April. Thus there is a lag of 4 days for supply from Bokaro.
  - Increase in allocation in Bokaro up to 90 MT from 30/04/2021 again raised the similar logistical issue as change in allocation was without any prior notice for arranging air lifting and tankers.
  - Unavailability of the tankers to be sent to Bokaro created a challenge for the State and State of Punjab was able to send only two tankers to Bokaro daily from 27<sup>th</sup> till 02/05/2021. On 3<sup>rd</sup> May, only one tanker could be airlifted due to tanker size issues.
  - From 4<sup>th</sup> onwards, State has been able to arrange 4 tankers capable of lifting 60-70 MT on a daily basis. However, there have been issues because of logistical challenges posed on account of weather and other factors leading to non-availability of air-force sorties. Although 4 tankers were made available to air force, only 2 tankers could be lifted on 6<sup>th</sup> and 7<sup>th</sup> May.
  - **Thus State is able to lift only about 30-35 MT of the allocated quota on days when only one sortie takes off and at max 60-70 MT in case air force is able to stick to its schedule of two sorties daily.**
  - Till 21<sup>th</sup> May, 2021, the shortfall of supply by plants from adjacent states (Inox, Panipat, Roorkee, Linde) is 112.02 MT. While total shortfall is 1233.84 MT.

**Note:** Vedanta Electro Steel Bokaro has reported that it has production capacity of 20 MT while allocation to the State of Punjab is 30 MT. Thus actual realizable allocation from Bokaro is only 80 MT against the allotted

quota of 90 MT. State has taken up with Gol to shift this quota from Vedanta Electro Steel Bokaro to Inox Hazira in Gujarat.

### **AVAILABILITY OF TANKERS:**

- Despite serious efforts of the state Government, State of Punjab has been able to arrange only 24 big tankers till now for lifting and distribution of the LMO (excluding the tankers bound by contractual obligations of the plants from adjacent states making direct supply to Hospitals).
- State of Punjab had requested Government of India to supply at least 50 tankers, out of which only 4 were supplied through IOCL. However, the two tankers couldn't be used for some days because of some dimension related issues of the vehicles. The issue has now been sorted and vehicles are in operation. But supply of 4 tankers against demand of 50 is too little as in order to increase daily number of flying tankers from 4 to 6, at least 8 tankers are required.
- State of Punjab needs at least 2 vehicles at each location (Panipat and Roorkie) and one vehicle at Linde to ensure continuous lifting from these plants. In addition, one vehicle is required at times at Inox to lift the 5-10 MT allocation beyond contractual obligation. Thus we have a total requirement of 6 tankers for lifting from plants of the adjacent states with each tanker of 15-20 MT capacity.
- For Bokaro, in order to lift the complete allocation of 90 MT, State needs to send 6 tankers on daily basis. With each round trip taking 4 days, total requirement is of 24 tankers. Since the tankers are to immediately fly back, at least 4 additional tankers of 15-20 MT Capacity are required for local distribution of the stock received. Thus total number of tankers required for fully lifting and distributing the Bokaro allocation is 28 Tankers.
- Since tankers are continuously on the move, to cater to any issues of delay, breakdown etc., at least 2 reserve tankers are required.
- Also, 4-5 tankers are needed to lift the newly allocated 20 MT quota from Hazira.
- Thus total requirement of tankers is around 40 while actually availability is only 22 (presuming 2 tankers remain under maintenance). State is therefore still terribly short by at least 16 tankers.

### **PATIENT LOAD FROM 21/04:**

The patient load in State of Punjab has increased from 2994 on 21/04 to 9867 as on 21<sup>th</sup> May with patients in L3 category ranging between 23-28% during this period. The rise in number of patients has been consistent and the trend is still on the rising side.

### **COVID OXYGEN CONSUMPTION:**

Covid oxygen consumption as on 30<sup>th</sup> April, 2021 was 203.8 MT. As on 21<sup>th</sup> May, 2021 it is 249.7 MT. The rising trend has been consistent. Non-COVID Oxygen consumption has remained in the range of 25 to 36 MT during this period. Thus total oxygen consumption (COVID and Non-Covid) has increased from 223.8 MT on 30/04/2021 to 281.5 MT on 21/05/2021.

### **AIRFORCE SORTIE ISSUES:**

- In order to fully lift allocated quota from Bokaro, we need 3 sorties on a daily basis, subject to availability of tankers.
- Only one sortie was possible from 27<sup>th</sup> till 3<sup>rd</sup> May. On 4<sup>th</sup> and 5<sup>th</sup> May two sorties carried 4 tankers. However, due to bad weather and certain issues faced by air force only one sortie was arranged on 6<sup>th</sup> and 7<sup>th</sup> May. We have been able to send 4 tankers thereafter, although the tankers scheduled to be flown on 08/05 and 09/05 were actually flown on 10<sup>th</sup> through 3 sorties (6 aircrafts). 4 tankers that were to be flown on 10<sup>th</sup> could be flown on the intervening night of 10<sup>th</sup> and 11<sup>th</sup>. 2 tankers were to be flown on 11<sup>th</sup> but only 1 could be airlifted.
- Now, additionally we have airlifted 2 tankers to Hazira.

### **CHALLENGES AND FUTURE REQUIREMENTS:**

#### **Challenges & issues**

- The patient load and oxygen consumption is seeing consistent increase.
- Logistical issues, less tankers and constraints of air-force sorties for lifting the allocated quota from Bokaro and Hazari are major impediments.
- Backlog with the plants in adjacent states.

#### **Requirements**

- Centre should increase allocation of LMO to Punjab by at least 50 MT in a week by further 50 MT in a fortnight to cater to increasing demand and also reallocate non-realizable 10 MT of Vedanta to some other plant.
- 16 Tankers/Containers of 15-20 MT capacity should be supplied by centre on priority. At least 10 should be supplied in next 2-3 days.
- Plants in adjacent states be directed to clear the back log allocation of State of Punjab.
- Air-force be directed to arrange for 3 sorties on a daily basis (Subject to supply of tankers by Centre) but in any case at least 2 sorties daily. In case of cancellation of sortie on a day, an additional sortie must be arranged on the immediate next day.