

Contents

	Page
1 Introduction.....	1
2 Scope	1
3 Hazards of transfilling.....	1
3.1 Personnel qualifications.....	2
3.2 Operating instructions.....	2
3.3 Description of gaseous and liquid oxygen.....	2
3.4 Some hazards of high pressure gaseous oxygen	2
4 Government regulations	2
4.1 General.....	2
4.2 U.S. regulations	3
4.3 Canadian regulations.....	4
4.4 State, provincial/territorial, and local ordinances.....	4
5 Transfilling system, equipment, and process	4
5.1 General.....	4
5.2 Transfilling system materials and oxygen compatibility.....	8
5.3 Cylinders.....	8
5.4 Cylinder valves, regulators, and pressure relief devices	10
5.5 Source of oxygen supply	12
5.6 Cylinders to be filled	12
5.7 Oxygen transfilling operation	13
6 Storage and maintenance of the equipment	14
7 References	14
8 Additional references.....	15

Tables

Table 1A—Oxygen temperature-pressure filling chart (U.S. customary units).....	6
Table 1B—Oxygen temperature-pressure filling chart (metric units)	7

Figures

Figure 1—Example of a cylinder shoulder with markings	9
Figure 2—540 valve for cylinder with straight thread (used in DOT-3AL and TC-3ALM cylinders)	10
Figure 3—540 valve for cylinder with taper thread.....	11
Figure 4—870 valve for cylinder with straight thread (used in DOT-3AL and TC-3ALM cylinders)	11
Figure 5—870 valve for cylinder with taper thread.....	11
Figure 6—Example of CGA marking system for U.S. domestic shipment of oxygen.....	13