

Contents	Page
1 Introduction.....	1
2 Scope	1
3 Definitions.....	1
4 Prefill inspection of compressed gas cylinders.....	2
4.1 Cylinder ownership	2
4.2 Cylinder markings.....	2
4.3 External damage	4
4.4 Cylinder valve inspection.....	4
4.5 Neckring inspection	4
4.6 Cleanliness—oxidizing and medical gas cylinders.....	4
4.7 Testing for internal contaminants	5
4.8 Hammer test	5
5 Cylinder filling	6
5.1 Preparation for cylinder filling	6
5.2 Product identification	6
5.3 Venting of residual gas	6
5.4 Evacuation of vented cylinders.....	7
5.5 Cylinder filling of nonflammable, nonliquefied compressed gases	7
5.6 Cylinder filling of nonflammable, liquefied compressed gases	7
6 Quality control	8
6.1 Analytical testing.....	8
6.2 General considerations.....	8
6.3 Analytical program for industrial gases.....	8
6.4 Analytical program for medical gas products.....	9
6.5 Analytical program for CGA grades of breathing air.....	9
7 References	9

Appendices

Appendix A—Example of high pressure cylinder fill checklist for use by gas suppliers	11
Appendix B—Example of liquefied gas cylinder fill checklist for use by gas suppliers	12
Appendix C—Pressure temperature filling charts	13

Appendix Tables

Table C-1—Argon temperature-pressure filling chart	13
Table C-2—Helium temperature-pressure filling chart	14
Table C-3—Nitrogen temperature-pressure filling chart	15
Table C-4—Oxygen temperature-pressure filling chart	16