

ISO 14644-5:2025-05 (E)

Cleanrooms and associated controlled environments - Part 5: Operations

Contents

Page

| | |
|---|-----------|
| Foreword..... | iv |
| Introduction..... | v |
| 1 Scope..... | 1 |
| 2 Normative references..... | 2 |
| 3 Terms and definitions..... | 2 |
| 4 Abbreviations..... | 4 |
| 5 General..... | 4 |
| 6 Impact assessment..... | 5 |
| 7 Operations Control..... | 6 |
| 7.1 General..... | 6 |
| 7.2 Operations control programme..... | 6 |
| 7.2.1 General..... | 6 |
| 7.2.2 Elements of the OCP..... | 7 |
| 7.2.3 Additional considerations for the operations control programme..... | 7 |
| 7.3 Materials Flow..... | 7 |
| 7.3.1 General..... | 7 |
| 7.3.2 Incoming materials and components..... | 8 |
| 7.3.3 Finished goods..... | 8 |
| 7.3.4 Waste removal..... | 8 |
| 7.3.5 Transfer of maintenance tools and test equipment..... | 8 |
| 7.3.6 Transfer and installation of large or stationary equipment..... | 8 |
| 7.4 Personnel management programme..... | 8 |
| 7.4.1 Requirements and restrictions..... | 8 |
| 7.4.2 Gowning programme..... | 9 |
| 7.4.3 Training..... | 10 |
| 7.5 Cleaning programme..... | 11 |
| 7.5.1 General..... | 11 |
| 7.5.2 Requirements for the cleaning programme..... | 11 |
| 7.5.3 Special cleaning..... | 12 |
| 7.6 Maintenance programme..... | 12 |
| 8 Monitoring programme..... | 13 |
| Annex A (informative) Personnel management..... | 14 |
| Annex B (informative) Gowning..... | 16 |
| Annex C (informative) Training..... | 18 |
| Annex D (informative) Cleaning..... | 20 |
| Bibliography..... | 24 |