ISO 11799:2024-09 (E)

Information and documentation - Document storage requirements for archive and library materials

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Sustainability -- Collections storage and preservation 2
4.1 General 2
4.2 Specifying storage spaces/conditions 3

5 Design planning 3
5.1 Identify design participants 3
5.2 Establish design priorities 4
5.3 Establish design specifications 4
5.4 Risk assessment 5
5.4.1 General 5
5.4.2 Hazards to collections 5
5.4.3 Site risk assessment 6
5.5 Location of repository within structure 7
5.6 Subgrade storage considerations 7

6 Building materials and assembly 8
6.1 Building fabric and environmental protection 8
6.1.1 General 8
6.1.2 Insulation and thermal stability (Thermal) 8
6.1.3 Airtightness 9
6.1.4 Hygroscopicity/permeability (Vapor) 9
6.1.5 Air pressurization and repositories 9
6.1.6 Modelling 10
6.2 Building materials and stability 10
6.2.1 General 10
6.2.2 Foundations and ground-bearing slabs 10
6.2.3 Exterior 11
6.2.4 Roof 11
6.2.5 Interior -- General 12
6.2.6 Interior finishes 12
6.2.7 Off gassing of construction materials 12
6.2.8 Building equilibration 13
6.2.9 Floors 13
6.3 Mechanical/HVAC systems 14
6.3.1 General 14
6.3.2 Equipment location 14
6.3.3 Design considerations 14
6.4 Security 17
6.4.1 General 17
6.4.2 Protection against intruders 17
6.4.3 Doors and circulation routes 17

6.4.4 Services ... 18
6.4.5 Windows ... 18

7 Furniture and lighting considerations ... 18
7.1 Furniture ... 18
7.1.1 General ... 18
7.1.2 Material requirements ... 18
7.1.3 Furniture configuration in the repository ambient conditions ... 18
7.1.4 Types of storage furniture ... 19

7.1.5 Mobile shelving systems ... 20
7.2 Lighting ... 20
7.2.1 General ... 20
7.2.2 Repository ... 21
7.2.3 Artificial light sources ... 21
7.2.4 Natural light sources ... 22
7.2.5 Collection-level mitigation strategies for reducing light exposure in existing repositories 22

8 Environmental monitoring ... 23
8.1 General ... 23
8.2 Methodology ... 23
8.2.1 General ... 23
8.2.2 Equipment ... 23
8.2.3 Deployment and sample rates ... 23
8.2.4 Data retention and analysis ... 24
8.2.5 Other data sources ... 24

9 Building-related hazards to collections ... 25
9.1 Pest considerations ... 25
9.2 Water considerations ... 25
9.3 Fire protection and prevention ... 25
9.3.1 General ... 25
9.3.2 Fire risk assessment ... 26
9.3.3 Structural fire protection ... 26
9.3.4 Minimizing fire hazard in an electrical system ... 27
9.3.5 Minimizing fire hazards in ventilation plant and equipment ... 28
9.3.6 Fire detection and firefighting ... 28
9.4 Seismic ... 29
9.5 Power/Emergency power ... 30
9.5.1 General ... 30
9.5.2 Emergency power ... 30

10 Facility records and maintenance ... 30
10.1 Facility records ... 30
10.2 Maintenance ... 30

Annex A (informative)Automaticfire-fightingsystems ... 32

Annex B (informative) Recommended climatic conditions for the long-term storage of archive and library materials ... 34

Annex C (informative) Environmental transitions for materials ... 37

Bibliography ... 38