

Archive Maintenance Handbook



Introduction

In accordance with the Federal Law No. (7) of 2008, on the National Archives, amended by the Federal Law No. (1) of 2014 and its executive by law, and the international standards applied in this field; the National archives seeks to build a modern and organized national archive within this framework especially with the national archives role as the authority concerned in spreading the archival awareness, and taking all the necessary measures to maintain archives in the State, this handbook was prepared to serve as a reference in assisting the government authorities in maintaining the documents and archives.

The Building Location should be

Close to users and researchers away from :



Flood Prone areas



Areas with slippery soil

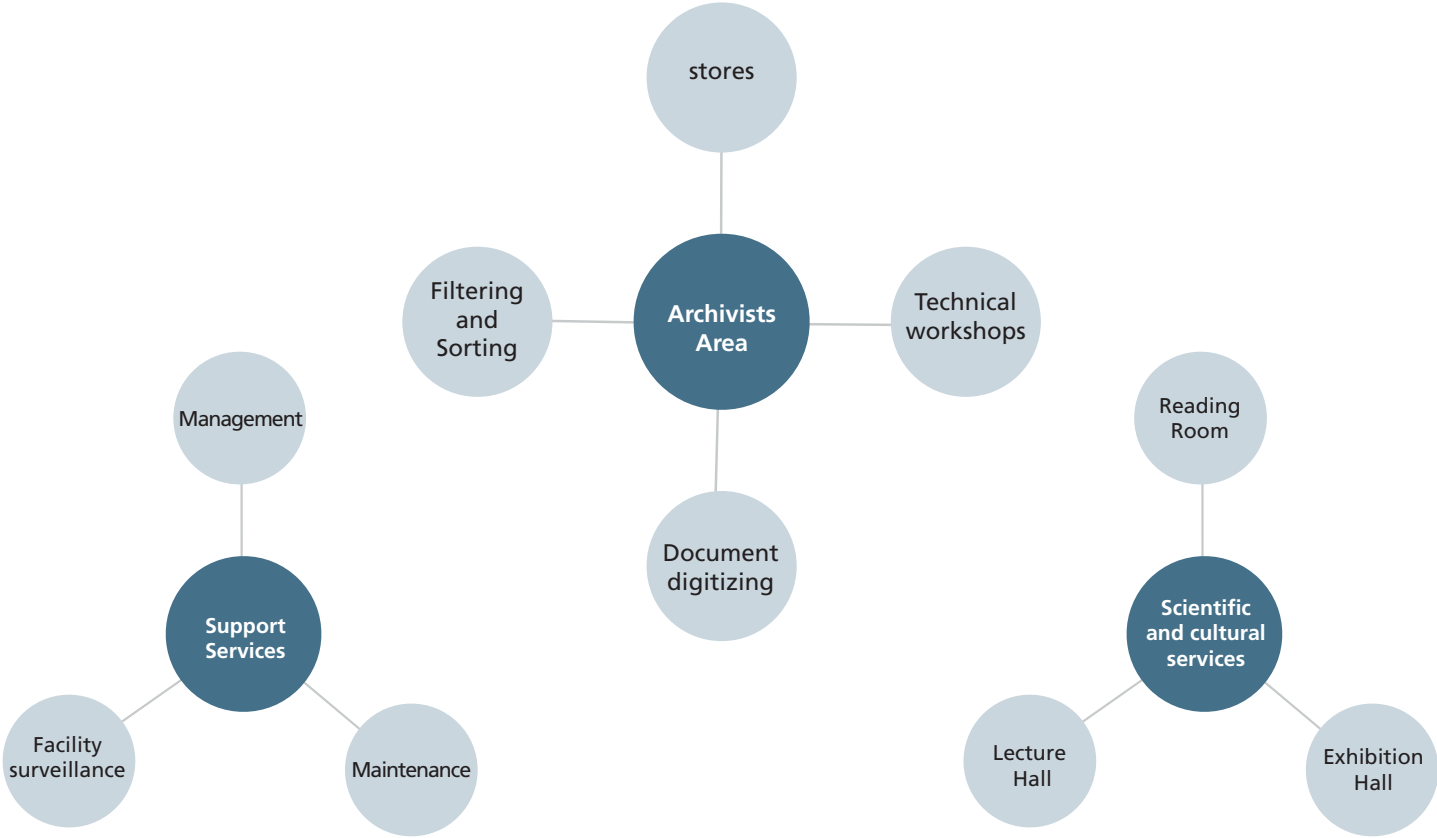


Sources causing fire and explosion



Areas contaminated with gasses and chemical emissions

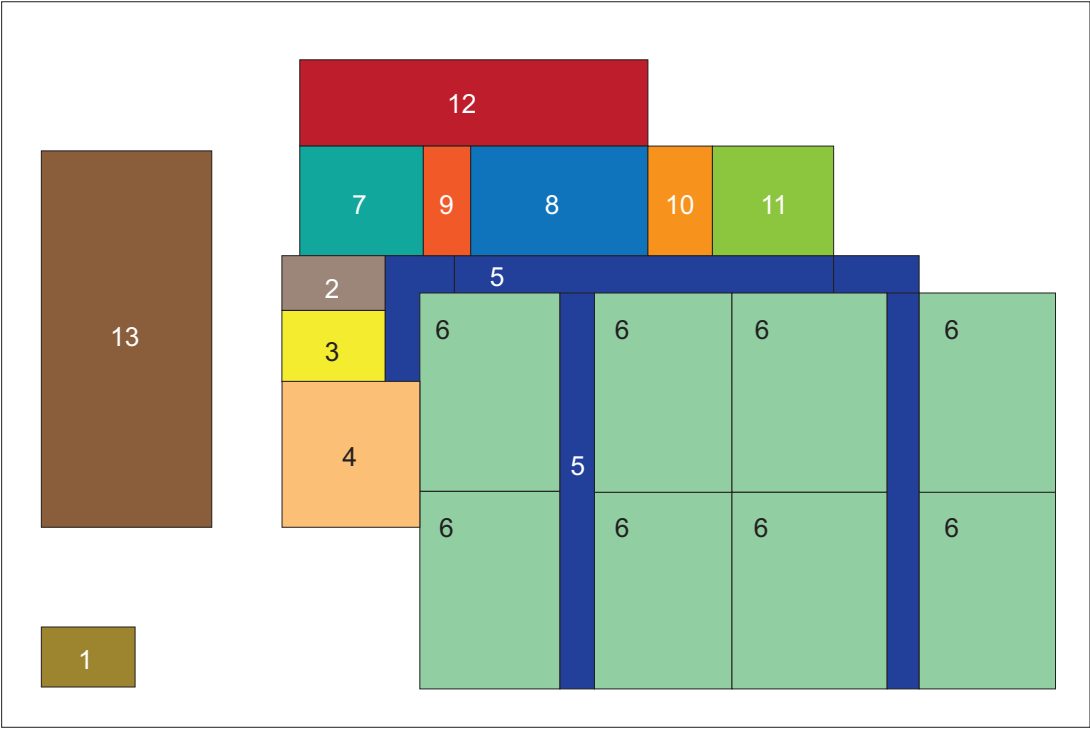
Building Facilities (1/2)



Equipment and materials
Prohibited Materials
The hazards and disasters
Legislations and international standards

Building Facilities (2/2)

- 1 Security office
- 2 Main entrance
- 3 Visitors reception
- 4 Lecture hall
- 5 Corridors
- 6 Archive stores.
- 7 Management office
- 8 Sorting and indexing halls
- 9 Technical workshops
- 10 Collecting Archive Material
- 11 Disinfection & sterilization
- 12 Electronic archiving
- 13 Parking



Equipment and
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Specification of an Archive Storage Room (1/3)

1. Hall space

- The area of each store: should not exceed 200 m²
- The store height: 2.50 m
- Fixed shelves capacity: 1100 kg \ m²
- Mobile shelves capacity: 1700 kg \ m²
- The width of corridors in the store:
Main corridor: 120 cm
Sub-corridors: 80 cm



Specification of an Archive Storage Room (2/3)

2. Floors and Paints

Floors

- The floors to be:
- Incombustible.
 - Non-carrier of dust



Paints

Paints used must contain fire resistant material for a period of one hour at least.



Specification of an Archive Storage Room (3/3)

3. Doors and Windows

Doors

Must be of the following specifications:

- To be fireproof for two hours at a temperature of 1,000 degrees.
- To have a system of automatic shut down in case of fire.
- Each room to have 2 doors (the main door + Emergency exit).
- The door width should be 120 cm



Windows

Must be of the following specifications:

- The size not exceeding 50 x 100 cm.
- To occupy 10% of the wall area.
- The glass should be tinted with sunlight insulation.



Photos of a Typical Archive Buildings



Archive building

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1. Equipment for Providing the Appropriate Climate (1/2)

Temperature

- Adjust the temperature through the central or the local air conditioning system, or by using the measuring temperature devices mobile or fixed in the hall.
- Control temperature to be from 18 to 20 degrees for the paper (See temperature and humidity table according to media type)
- To be stable in each room.
- To provide the quality of air
- Provide air purification by the air conditioning systems to get rid of dust and contaminants, or the provision of separate devices to purify the air.

Humidity

- Automatically adjust the humidity level through the central air conditioning system by regulating dedicated humidity measuring devices
- The humidity should not exceed 55 – 60% for paper (See temperature and humidity table according to media type)
- To be stable in each hall



Light

Light should be measured by the Lux unit and the following should be taken into account:

- Lighting (cold light) 150 Lux.
- Turn off the light when the hall is not used.
- Lamps should not in touch with the shelves and archive boxes.
- Documents should be away from windows.
- The use of stained glass to refract the sun light



1. Equipment for Providing the Appropriate Climate (2/2)

Table of temperatures and humidity percentages according to the media types:

Container	Temperature	Humidity percentage
Paper	$18^{\circ}\text{C} \pm 2^{\circ}\text{C}$	$55\% \pm 5\%$
Colored films	$-6^{\circ}\text{C} \pm 2^{\circ}\text{C}$	25%
Films (black and white)	$17^{\circ}\text{C} \pm 1^{\circ}\text{C}$	$35\% \pm 5\%$
Audio tapes	$17^{\circ}\text{C} \pm 2^{\circ}\text{C}$	$40\% \pm 5\%$
Photographs (black and white)	$12^{\circ}\text{C} \pm 1^{\circ}\text{C}$	$35\% \pm 5\%$
Colored photographs	$5^{\circ}\text{C} \pm 1^{\circ}\text{C}$	$35\% \pm 5\%$
Electronic media	$18^{\circ}\text{C} \pm 1^{\circ}\text{C}$	$40\% \pm 5\%$

2. Alarm and firefighting system

Alarms

An early alert network should be installed:

- Automatically goes on with the spread of smoke.
- Is linked to the automatic extinguishing system.
- Is contact to the Civil Defense.
- Inspected on a regular basis.



Fire Extinguishers in the Normal Archive

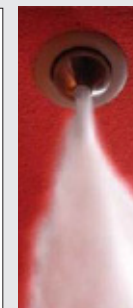
A manual extinguisher must be provided (bottles of CO2 powder) inside and outside the hall



Fire extinguishers in Strategic Archive room

Provide extinguishing network with gas:

- INERGEN
- FM 200
- NAF's 125



3. Security System

Surveillance and Guarding System

- Installation of a surveillance camera system inside and outside the hall.
- Hire an employee to guard the building and supervise the system.



Access Control System

An access control system should be installed to track the circulation of :

- Documents.
- Authorized Employees.



4. Cabinets

**Hanging
Files**



**Maps and
Plans**



**Microfilms and
Electronic medias**



**Confidential Archive
Materials**



Archive
building

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5. Shelves

Specifications of Shelves:

- Strong Steel Shelves
- Height: 2.20m
- Depth: 30cm to 40cm on each side
- The length of the shelf: 100cm to 120cm
- The length of the shelf row: not exceeding 10m/longitudinal
- The weight of the full fixed shelves: 1100kg/m²
- Weight of the full mobile shelves: 1700kg/m²
- The shelves base shall be raised up above the ground level by of 10cm
- Installing shelves as follows:
- main corridor : 120cm
- sub-corridors: 80cm



Vertical mobile shelves



(Mobile Shelf)



fixed shelves

6. Archival Boxes

Specifications of Archive Boxes:

- Made of cardboard or any other material that is able to save the document from damage.
- Acid Free Materials.
- Free from acute angled and potentially rusty materials.
- Measurement of archive boxes

Height: 35 cm

Depth: 27 cm

Width: 8 cm



Cardboard boxes designed to store a small number of files



Box File with hanging sides which have a top moving cover



Normal
Box File



7. Files

Specifications of Files :

- Made of cardboard or any other Protective material.
- Acid Free materials.
- Free from acute and potentially rusty materials.
- File Measurement
Length : 30 cm
Width : 22 cm

Hanging file



Flat files



Materials not allowed to be used in Archive Preservation



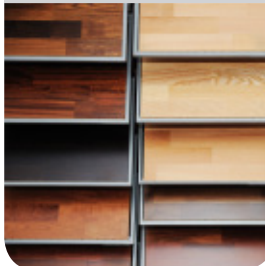
Internationally
outlawed Halon



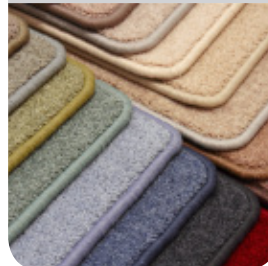
Water sprinkler to
extinguish the fire



Wooden Floors



Carpet Flooring



Wide windows



Files requiring
paper punching



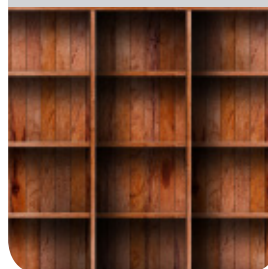
Stapler & Puncher



Paper shredder



Wooden cabinets



Wooden doors



Archive
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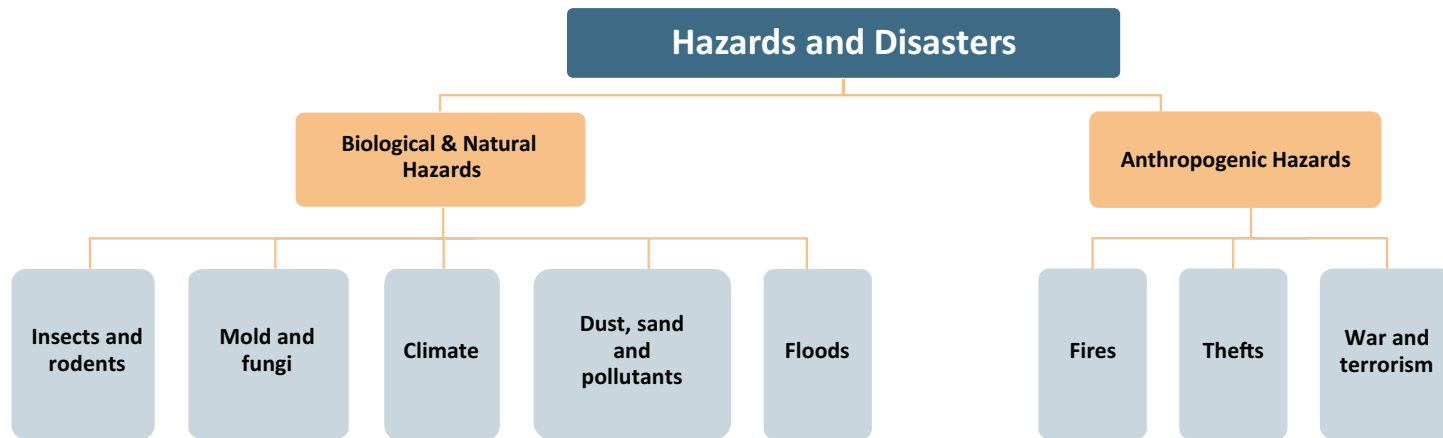
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Types of Hazards and Disasters Threatening Archives



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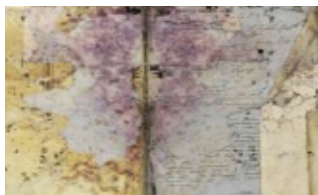
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Preventative Procedures : Biological & Natural Hazards (1/2)



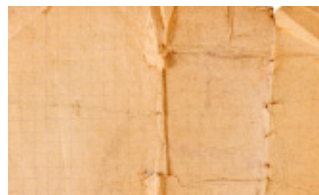
Insects and rodents.

1. cleaning and maintaining of the building
2. Spraying pesticides without damaging documents.
3. Filling the gaps and cracks so that insects cannot penetrate.
4. Closing the doors tightly.
5. Preventing the access of materials that may attract insects & rodents .
6. Keeping the disposal of trash and garbage at a reasonably safe distance from the hall



Mold and fungi

1. Keeping the air conditioning running at all time with regular ventilation to ensure the renewal of the air.
2. Ensuring the access of proper amount of light to the room.
3. Providing regular treatment and separation of the damaged documents to prevent transmission of infection.



Climate

1. Using systems complying with the international standards in temperature and humidity control for every store material
2. Ensuring the provision of sufficient light and turning off the lights when the halls are non vacant



Dust, sand and pollutants

1. Regular cleaning of the halls using electrical cleaning equipment.
2. Installing an air purification systems.
3. Changing the Filter of the AC & providing periodic ventilation .
4. Filling in the gaps and cracks.

Preventative Procedures : Biological and Natural Hazards (2/2)

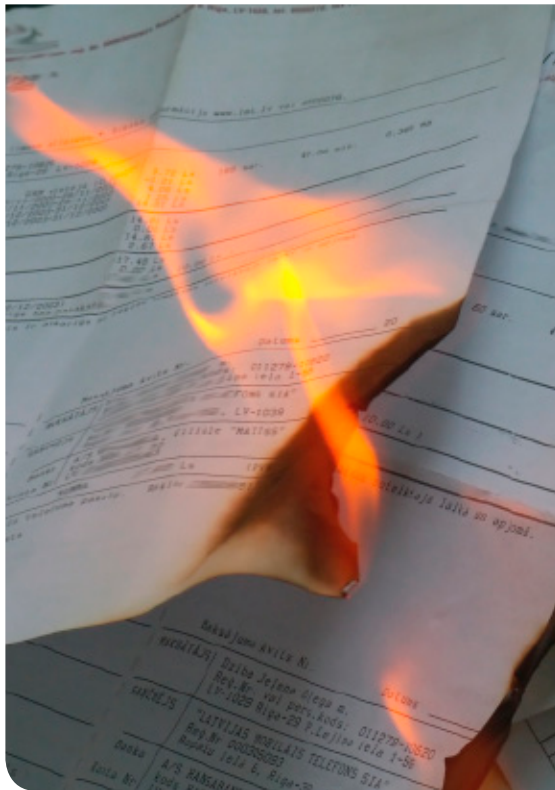
Floods

Floods may occur due to natural factors such as heavy rain or human factors such as negligence and non-compliance with regulations and standards. To avoid the exposure of the archive halls to floods, or to minimize the extent of damage, the following must be considered:

- Avoid locating archive stores in the building basement.
- The archive halls must not accomodate any transiting water pipes.
- Seal the gaps that cause the rain to seep in to the building.
- Install a water leakage detection system in the halls.
- Regularly maintain the sewage of water pipes in the building.
- Lift the shelves based at the ground level to a height of 10 cm.
- Establish an emergency recovery plan to face the flood.



Preventative Procedures : Anthropogenic Hazards (1/3)



Fires

Archive fires occur either due to negligence and non-compliance with regulations and standards of safety and security, or intentionally caused by arson. The following should be considered to avoid any fire and minimize the extent of damage:

- Keep the archive halls far from any close risk such oils, gasoline and gas.
- Install, maintain and monitor the early alarms systems against fire, and link them to the early automatic gas extinguishing system.
- Connect the early alarm system with the Emergency Department in the organization and the Civil Defense Department.
- Divide the stores into halls not exceeding 200 m², and isolate them to prevent the spread of flames.
- Equip the archive halls with fireproof materials, such as metal shelves and steel doors, and avoid the use of wood and rubber materials, especially as flooring.
- Use fire-proof doors.
- Cover the electrical wires with fire resistance metal pipes.
- Provide fire extinguishers and manual fire fighting systems at the entrances, and in all corners of the archive hall.
- Ensure the establishment and endorsement of an emergency and rescue plan in case of fire.

Preventative Procedures : Anthropogenic Hazards (2/3)



Theft

Ensure the following:

- Access control to the archive stores and the circulation of borrowed documents borrowing.
- Install a surveillance camera system inside and outside the archive hall.
- Install an anti-theft alarm system.
- Install a system for alternate guard – and link it with the surveillance system.

Preventative Procedures : Anthropogenic Hazards (3/3)



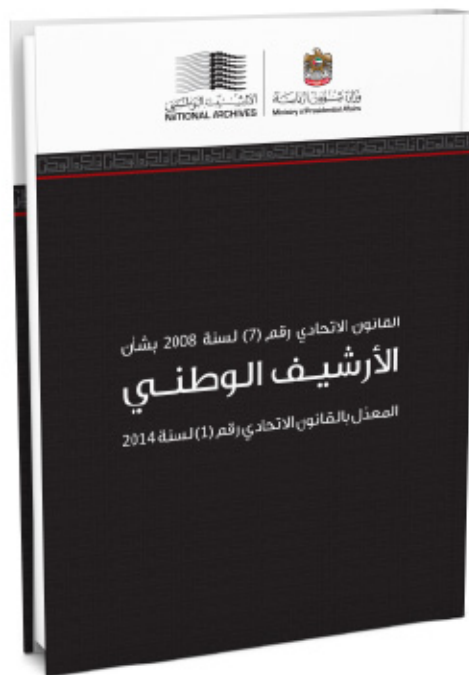
War & Terrorism

You shall secure the following:

- A document backup policy .
- Copies of vital documents.
- Diversifying the storage location of backup copies
- Setting and approving an emergency and documents evacuation plan in anticipation of wars.

The Legislations in the Field of Archive Maintenance (1/2)

The Federal Law No. (7) of 2008, on the National Archives, amended by the Federal Law No. (1) of 2014



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The Legislations in the Field of Archive Maintenance (2/2)

The executive by law of the Federal Law No. (7) of 2008 on the National Center for Documentation and Research



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International Standards in the Field of Archive Maintenance



ISO 11799

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