



Association of Commonwealth Archivists and Records Managers

ACARM Records Management Guides

5 Records Maintenance

This Guide provides information on the retrieval and storage of records, and examines the requirements of a vital records programme.

Semi-current records

When records are no longer required for the conduct of current business, but still need to be kept for reference or legal purposes, or may have potential for permanent preservation because of their historical value, they become 'semi-current records'. At this point they should be removed from business areas and current systems, so that they do not take up valuable space unnecessarily. They should be stored in a records centre or intermediate repository pending their disposal under schedules or as a result of appraisal. Such a place provides more economical storage and maintenance, and facilitates systematic disposal. The choice between using an external provider for this service and keeping it in-house is based on a number of factors:

- Cost (especially fixed costs)
- Quality of service
- Initiatives and innovations on the part of the supplier
- Flexibility
- Trained and/or specialist staff

There is no one answer to the question of outsourcing or keeping this function in-house. It rather depends on individual circumstances and management preferences.

Retrieval and tracking

Records are created, maintained and preserved in order to be used. The records management system must therefore include effective mechanisms for retrieving records and tracking their whereabouts and use. Effective procedures must be in place to ensure swift retrieval, an audit trail of use and accurate return of records.

A good records retrieval operation contains the following elements:

- Effective finding aids to identify the record, provide location details and access restrictions (eg indexes, databases, file plans)
- Authorisations for access (for named staff or according to their role or business unit)
- Security clearance system (if appropriate)
- Production register to record details of records accessed, their location, member of staff responsible and return of records

Effective record tracking (knowing where a particular record is at any one time) ensures that records can always be located when required and remain in a controlled and secure environment. The system should also provide for the transfer of records between individuals when the record is not first returned (and tracked) back to the storage system. Tracking systems should record:

- The record's reference or unique identifier
- Title or description of the record
- The individual, position or business unit accessing the record
- Date of record movements (including return to storage)

Retrieval and tracking should include levels of use, retrieval patterns and other statistics relating to access. This information can be used to re-assess retention decisions, justify storage requirements and provide essential data about performance and resource requirements of the records management system.

Storage

Whatever the solution adopted for record storage, good housekeeping and management is very important. Premises should be kept clean and tidy and they should be regularly inspected because early detection of maintenance issues will ensure threats to records are kept to a minimum and have minimal impact.

Environmental conditions

Unsuitable environments have damaged records more extensively than any other single factor. Careful control and observation of temperature, humidity and ventilation within storage areas and regular maintenance of heating/ventilation systems are essential. A stable environment is of paramount importance. Fluctuations in temperature and relative humidity will cause significant damage.

For paper records:

- A temperature within the range 13° to 18° C is recommended
- Relative humidity should be in the range 45% to 65%. If it exceeds the latter figure, there is a significant risk of mould growth within 48 hours

For microform and film:

- A temperature within the range 15° to 20°
- Relative humidity in the range 20% to 40%

For electronic records:

Device	Operating	Non-operating	Long term
Magnetic tape reel, 12.7mm	18 to 24° C 40 to 60% RH	5 to 32° C 20 to 80% RH	18 to 22° C 35 to 45% RH
Magnetic tape cassettes, 12.7mm	18 to 24° C 45 to 55% RH	5 to 32° C 5 to 80% RH	18 to 22° C 35 to 45% RH
Magnetic tape cartridges	10 to 45° C 20 to 80% RH	5 to 45° C 20 to 80% RH	18 to 22° C 35 to 45% RH
Magnetic tape - 4 & 8mm helical scan	5 to 45° C 20 to 80% RH	5 to 45° C 20 to 80% RH	5 to 32° C 20 to 60% RH
Optical disk cartridges (ODC)	10 to 50° C 18 to 80% RH	10 to 50° C 5 to 90% RH	18 to 22° C 35 to 45% RH
CD/DVD	10 to 50° C 10 to 80% RH	10 to 50° C 5 to 90% RH	18 to 22° C 35 to 45% RH

The following conditions should also apply to electronic records:

- Avoid ultra-violet light, chemicals, mould and dust
- Keep in closed metal cabinets and avoid magnetic fields
- Reduce handling to a minimum
- Pack media securely

Environmental conditions should be monitored weekly. Thermometers are essential to check temperature readings. Hygrometers should be used to check relative humidity levels. Thermo-hygrographs provide for weekly print-outs of temperature and humidity readings. Monitoring equipment should be calibrated once a month.

Flood protection

Water damage is the most common form of disaster to affect records. Much of this can be avoided by improving design and maintenance of buildings and expert advice in this area should be sought. However, there are a number of actions which records managers can undertake to minimise the risk of damage:

- Identify and check regularly potential internal and external hazards (for example, heating systems, water tanks and water pipes)
- Identify and check regularly potential penetration hazards (for example, windows, gutters, skylights and drains)
- Ensure that heating and air-conditioning systems are regularly checked and serviced
- Consider the possibility of installing flood alarm systems (for example, sensors on water tanks)
- Raise bottom storage shelves five centimetres above floor level
- Fit top storage shelves with metal covers
- Obtain information on local flood danger periods
- Never put records on the floor

Fire protection

It is not considered good practice to have sprinkler systems in records stores, particularly archive stores. In the event of the system being triggered, the water will do considerably more damage to the records than the fire it is trying to extinguish. This happens mainly because it is difficult for sprinkler systems to be locally applied in the same degree that a fire would occur. The result is that large numbers of records that were not in imminent danger from the fire will be soaked. Hose reels and extinguishers, combined with an effective detection system, are usually the most efficient weapons against fire.

Records managers should have regular contact with fire precaution officers for their organisation. Each must be kept up to date with latest developments in their areas – the records manager needs to be satisfied that there are adequate measures (in the form of procedures, announcements, drills, etc) that will protect the considerable asset for which they are responsible; the fire precautions officer needs to be made aware of the collections of records, where they are stored, who has access to them, and in what form they are, so that adequate measures may be taken.

In identifying their own risks the following actions can be undertaken:

- Ensure that all existing fire regulations in respect of doors, extinguishers and alarm systems are enforced
- Ensure that fire exit and other relevant signage is adequate, particularly in isolated areas such as records stores
- Maintain a list of inflammable substances and isolate them from the building
- Keep storage areas clean and tidy
- Check electrical wiring regularly
- Permit smoking only in designated, safe areas
- Maintain liaison with local fire prevention officers
- Ensure that staff are kept aware of procedures and means of escape in the event of fire

Record storage areas should meet applicable fire regulations. Walls and doors should resist fire for two hours, there should be automatic fire and smoke detectors and staff should be trained in the use of fire extinguishers which should be positioned in and near records storage areas. Fire officers and the local fire brigade should be consulted and informed of the need to protect records from both the effects of fire and of water and chemicals used to extinguish fire.

Security

Each building and each collection of records poses its own security problems. Records managers should liaise closely with security officers to minimise the risk to their holdings from loss or theft. The following actions should be undertaken:

- Caretakers/security guards should check all entrances to buildings, including ground floor windows and basements, after closing time each day and at least once every twenty-four hours during weekends and holidays
- Buildings with no caretaker or security cover should be fitted with an automatic intruder alarm system
- All staff members should be aware of the need for good security, for example, good key control and identification procedures. Good key control is very important. All necessary measures must be taken to prevent a compromise of key security. For example, if a key is lost, locks must be changed immediately.

Whether records are kept in filing cabinets in offices, in filing rooms adjacent to offices or in off-site accommodation appropriate access controls should be in place. This includes, if necessary:

- Sturdy construction of buildings
- Barred/secure windows
- Secure doors

- Guards or intruder alarms
- Controlled-access key system

Other

Risks to records, such as infestation from insects and animals, and environmental pollution, should also be taken into consideration. Prevention measures, including traps and poisons, and filtering systems, should be taken.

Electronic records - migration and media replacement

Electronic records need to be subject to a preservation strategy that will ensure their continued viability through system change and upgrade. Electronic records in obsolete formats are at risk of becoming inaccessible. Those that need to be retained must therefore be migrated from one system to another which will ensure that they remain accessible, authentic, reliable and useable through system change. The documentation of such processes must be maintained as evidence throughout the records' lifecycle.

Similarly where digitisation and microfilming programmes are in place to maximise space or achieve other efficiencies in records management, appropriate documentation of conversion must be created and maintained.

Vital records and emergency planning

Vital records are those records without which an organisation could not continue to operate. They are the records which contain information needed to re-establish the business of the organisation in the event of a disaster and which protect the assets and interests of the organisation. It is estimated that up to ten per cent of an organisation's records can be classified as vital. The following are examples of what might be identified as vital:

- Legal documents, including current contracts
- Corporate plans
- Manuals of instruction
- Minutes of management board meetings
- Current accounts (payable and receivable)
- Records identified for legal retention and other records required for evidential/legal purposes
- Computer software programmes and data
- Indexes and other finding aids to records
- Systems administration documentation

For the purpose of identifying vital records (a process that might form a part of the records audit – see leaflet no. 3), all records might be classified as follows:

- Vital - those records without which your organisation cannot continue to operate and which cannot easily be reproduced, if at all, from other sources
- Important - can be reproduced from original sources but only at considerable expense
- Useful - loss would cause temporary inconvenience
- Non-essential - no value beyond immediate purpose

There are three options for protecting vital records:

- Duplication and dispersal (the duplicate may be in paper or alternative format, such as microform or CD)
- Use of fireproof and secure storage facilities
- Remote storage

The storage of records in electronic form may involve significant risks, such as technical obsolescence, but many of these can be avoided by the use of adequate storage plans and strategies. A back-up system is generally recommended.

A vital records programme will require some allocation of resources which can be hard to justify. However, since records are unique, they cannot be replaced if they are stolen or destroyed – vital records protection and preparation of a recovery plan is the equivalent of insurance for records.

All organisations should have a business recovery plan, detailing the steps they will take in the event of a disaster. This plan must be reviewed at least once a year and updated, if necessary. The plan should cover:

- Identification of business recovery teams
- Training and awareness programmes
- Emergency equipment
- Supplies and services
- Back-up and off-site storage arrangements
- Vital records

Business continuity and disaster recovery planning are key elements of the preservation of records in all formats. There are various statistics on business continuity websites that illustrate the consequences of the absence of such planning. For example, only 20% of organisations without a business continuity plan are likely to survive; 90% of organisations that suffer a significant data loss are not in business two years later. Business continuity planning covers the policies and procedures for the development, testing and maintenance of plans that enable an organisation to continue to operate during and after a disaster. Disaster recovery planning is usually a part of the business continuity framework; it focuses on the recovery of specific operations, functions, services and applications (like records).

The **Association of Commonwealth Archivists and Records Managers (ACARM)** was founded in 1984 to promote professional development in the field of records and archives management throughout the Commonwealth. It provides a link for Commonwealth archivists, archival institutions and records managers which is especially important because of the common heritage of legal and administrative systems, and hence of record keeping practices, which the countries of the Commonwealth share.

ACARM shares practical solutions to the problems of managing records and archives, and disseminates professional and technical information through its *Newsletter*, listserv and website – www.acarm.org

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