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Information et documentation — Préparation et réponse aux situations d'urgence

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 46, *Information and documentation,* Subcommittee SC 10, *Requirements for document storage and conditions for preservation*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Information and documentation — Emergency preparedness and response

1 Scope

This document provides a context for emergency planning, response and recovery for all types of an archive, library or museum collections in light of other existing plans. It provides responders and other stakeholders with an outline for planning, responding and recovering. This document does not address the causes of a critical event, but the consequences and wider impacts. This document outlines a cycle for developing, exercising and reviewing a plan, and how to present a plan. It aims to encourage responders to develop their capabilities in emergency preparedness and touches on some elements of response and recovery, where relevant, by highlighting indicators of good practice.

It is not intended to be an operations manual as there is no single approach that meets the needs of every site, nor is there one single set of organizational arrangements that is appropriate to each and every type of emergency.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
business continuity
capability of the organization to continue delivery of products or services at acceptable levels following disruptive incident

[SOURCE: ISO 22300:2018, 2.3.10]

3.2
business continuity plan
BCP
documented procedures that guide organizations to respond, recover, resume, and restore to a pre-defined level of operation following disruption

Note 1 to entry: Typically, this covers resources, services and activities required to ensure the continuity of critical business functions.

[SOURCE: ISO/IEC 27031:2011, 3.3]

3.3
collection
documents and items under the stewardship of an archive, library or museums regardless of format

3.4
emergency management
overall approach preventing emergencies and managing those that occur

Note 1 to entry: In general, emergency management utilizes a risk-management approach to prevention, preparedness, response and *recovery* (3.11) before, during and after potentially destabilizing and/or disruptive events.

[SOURCE: ISO 22300:2018, 3.78]

3.5
emergency preparedness
measures and action taken in advance to mitigate the effects of possible destructive events

Note 1 to entry: This includes drawing up a disaster response plan.

[SOURCE: EN 15898:2011, 3.4.6]

3.6
emergency response
immediate phase in the aftermath of an event, consisting of gaining control, limiting the extent of the emergency and minimizing further damage

3.7
hazard
source of potential harm

Note 1 to entry: Hazard can be a risk source.

[SOURCE: ISO Guide 73:2009, 3.5.1.4]

3.8
incident response
actions taken in order to stop the causes of an imminent *hazard* (3.7) and/or mitigate the consequences of potentially destabilizing or disruptive events, and to recover to a normal situation

Note 1 to entry: Incident response is part of the *emergency management* (3.4) process.

[SOURCE: ISO 22300:2018, 3.115]

3.9
mutual aid agreement
written agreement between institutions that provides for assistance upon request, by furnishing personnel, equipment, and/or expertise

3.10
pre-impact phase
phase of warning

3.11
recovery
restoration and improvement, where appropriate, of operations, facilities, *collections* (3.3), livelihoods or living conditions of affected organizations, including efforts to reduce risk factors

[SOURCE: ISO 22300:2018, 3.187, modified — The term "collections" has been added.]

3.12
review
activity undertaken to determine the suitability, adequacy and effectiveness of a subject matter to achieve established objectives

[SOURCE: ISO Guide 73:2009, 3.8.2.2]

3.13
risk
effect of uncertainty on objectives

Note 1 to entry: An effect is a deviation from the expected — positive and/or negative.

Note 2 to entry: Objectives can have different aspects (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organization-wide, project, product and process).

Note 3 to entry: Risk is often characterized by reference to potential events and consequences or a combination of these.

Note 4 to entry: Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence.

Note 5 to entry: Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of an event, its consequence, or likelihood.

[SOURCE: ISO Guide 73:2009, 1.1]

3.14
risk assessment
overall process of risk identification, risk analysis and risk evaluation

[SOURCE: ISO Guide 73:2009, 3.4.1]

3.15
risk management
coordinated activities to direct and control an organization in regard to *risk* (3.13)

[SOURCE: ISO Guide 73:2009, 2.1.1]

3.16
risk management plan
scheme within the risk management framework specifying the approach, the management components and resources to be applied to the management of risk

[SOURCE: ISO Guide 73:2009, 2.1.3]

3.17
triage
prioritizing or sorting system to assess the severity of affected collections and to assign stabilization priorities

4 Planning

4.1 Process of preparing

4.1.1 General

Preparing is a continuous cycle of planning, organizing, equipping, training, evaluating and improving procedures to ensure effective co-ordination and the enhancement of capabilities to respond and recover in the event of an emergency.

Figure 1 illustrates this process.

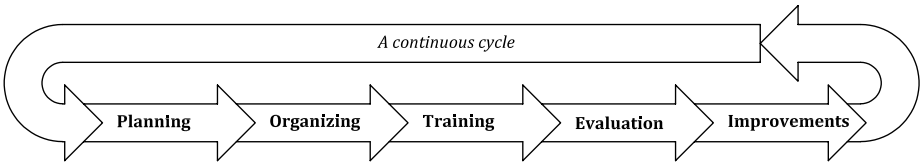

Figure 1 — Process of preparing

NOTE See Annex C for a detailed diagram of emergency planning.

4.1.2 Establishing an emergency committee

An emergency committee shall be established.

This committee is responsible for the emergency preparedness and response plan. Senior management should be directly involved in the committee. This committee shall be responsible for:

— preparing an emergency preparedness and response plan;

— managing an integrated response and recovery to an emergency affecting or threatening collections and their environment.

The emergency committee should include:

— the emergency preparedness and response plan coordinator with a background in conservation and/or collections care or substantial knowledge of collections and buildings;

— senior management with knowledge of the different emergency plans within the institution (i.e. business continuity plan, emergency communication plan, etc.);

— full range of service groups;

— experts with knowledge of:

  — logistical implementation issues such as financing, insurance, and governmental support;

  — different emergency plans within the institution;

  — conservation and preservation;

  — collections and their priorities;

  — stacks and storage management;

  — heating, ventilation and air-conditioning (HVAC) and other building systems.

— other stakeholders.

Expertise may be recruited from outside the institution as needed.

NOTE Annex A gives a list of stakeholders and their roles during an incident.

4.1.3 Establishing a documented program

The institution shall have a documented and scheduled program that includes:

— written policy approved by the leadership;

— established program goals and objectives;

— established program plans and procedures that safeguard the collections;

— budget, purchase, and maintenance of standard emergency supplies and equipment;

— review process for continuous improvement;

— training plan and training programme.

4.1.4 Stating the emergency preparedness and response plan's objective

The emergency preparedness and response plan for collections shall have a clearly stated objective.

The objective is a brief summary of the purpose of the emergency preparedness and response plan to reduce damage to the collections and their environment with procedures to address hazards that present the highest risks.

The objective shall include planning for small and large emergencies and the appropriate actions under a range of circumstances, with emergency procedures to address each situation.

NOTE 1 Emergency levels are defined in 4.3.

NOTE 2 Lack of preparedness can lead to inadequate or inappropriate response and the escalation of a small-scale emergency to a larger incident, with greater impact on more of the collection and/or building, over a longer period of time.

The objective shall specify the limitation on planning, sectors or areas out of the scope.

4.2 Understanding identified risks and their impact

4.2.1 General

The emergency committee shall identify conditions or events that could contribute to loss or damage to collections to proactively address hazard mitigation, emergency response and emergency recovery.

Building regulations mainly relate to life safety and mechanical system operations. Therefore, a risk assessment shall be conducted with regard to the protection of the building and collections.

Risk assessment can be used to support decisions about disaster prevention or protection of collections in a new or existing building. It can be used to provide general guidance or to support choices in the selection of scenarios. A risk assessment shall be carried out to identify the specific risks to collections and the site.

Risk assessment can identify:

— compliance with safety code and regulations;

— compliance with preservation standards and requirements;

— corrective and compensatory measures against the identified hazards;

— balance between cost and risk reduction benefit;

— special events or temporary exhibitions that can compromise existing fire protection systems;

— acceptable risks especially for severe events;

— reliability of the emergency preparedness and response plan and/or the overall crisis management.

Effective risk assessment and management requires information about:

— collections and the building;

— hazards to these;

— collections and building vulnerabilities;

— potential impacts on these;

— controls that can be put in place.

It is important that gaps in information or the need to gather more information (such as risk assessments, surveys, etc.) are identified during the planning process.

The expertise of emergency services (such as representatives of local fire and police departments, occupational health and safety officer, etc.) shall be requested for assessing the site risks and reviewing the plan.

4.2.2 Identifying hazards

Accurately assessing hazards and identifying vulnerabilities is critical to understanding the risks to collections.

NOTE 1 ISO 11799 contains information on risks and requirements for a new construction or for reviewing an existing building and for their maintenance.

NOTE 2 ISO/TR 19815 contains information on risks and requirements for managing the environment of collections in a repository.

NOTE 3 ISO/TR 19814 contains information on risks and requirements for managing library and archives collections.

Table 1 ranks the likelihood of hazards.

Table 1 — Ranking the likelihood of hazards

Established	The site is periodically affected by natural hazards (i.e. more than every 10 years). The area includes buildings or other activities which can be targets for damage, vandalism or unauthorized access. Technical failures like leakages, power failures, etc. occur on a frequent basis or have been registered in the recent past years. Collections have been affected by technical failures in the recent past years. Activities in the area are hazardous to the site.
Credible	The site is prone to natural hazards which affect the site on a sporadic basis (i.e. less than once every 10 years). No damage, vandalism or unauthorized access against archives, libraries or museums has been registered in the area but in immediate vicinity other buildings could be a target. Technical failures like leakages or power failures have been registered in the past years but with no harm to collections. Activities in the area can be hazardous to the site.
Potential	The region is prone to natural hazards, but the site has never been affected. No damage, vandalism or unauthorized access against archives or libraries has been registered in the area. The maintenance of the building and its equipment is made according to regulations and documented. Activities in the area are not hazardous to the site.
Minimal	The region is not prone to natural hazards and no critical event has been registered. The maintenance of the building and its equipment is made according to regulations and documented. Activities in the area are not hazardous to the site.

4.2.3 Identifying building vulnerability

The building vulnerability assessment considers the potential impact of loss after an event, and determines if critical systems will continue to function during an emergency.

It shall consider the age, function and style of the building to determine inherent risks, including fire risks.

The building vulnerability assessment shall consider the following factors:

— local area risks such as severe weather, tsunamis, mudslides, volcanoes, floods;

— site;

— building envelope;

— physical structure and design;

— heating ventilation air-conditioning;

— plumbing and gas systems;

— electrical systems;

— fire detection and fire suppression systems;

— fuel load constituted mainly of paper-based collections;

— use of non-storage areas for storage;

— adjacency with science laboratories or chemical storage;

— changing exhibition and display areas;

— prior or chronic infrastructure problems.

The vulnerability assessment shall consider external factors, including:

— access conditions for rescue vehicles;

— fire-fighting water supply;

— time of response to an alarm;

— criminal activities.

Table 2 ranks the severity of the building vulnerabilities.

Table 2 — Building vulnerability rankings

Devastating	One or more major weaknesses have been identified that make the building extremely susceptible to a hazard. All or part of the building will be lost or have structural problems. Critical installations will be interrupted. Side effects are not manageable. The facility is closed.
Severe	One or more major weaknesses have been identified that make the building very susceptible to a hazard. Critical installations can be interrupted. The entire facility can be closed for a period of up to two weeks and a portion of the facility can be closed for an extended period of time.

Table 2 *(continued)*

Noticeable	A weakness has been identified that makes the building susceptible to a hazard. Critical installations can be interrupted. Facility remains open but one or several repositories are affected requiring the relocation of a part of the collections.
Minor	A minor weakness has been identified that slightly increases the vulnerability of the building. Critical installations will continue to function. Side effects of an event are manageable. The collections environment can be affected with no need of relocation of collections.

4.2.4 Identifying collections vulnerability

The collections vulnerability assessment shall consider consecutively physical damages and the loss of value.

The vulnerability assessment shall consider special hazards to collections and the side effects on their preservation conditions in the case of an incident. Only hazards that have a significant probability shall be considered.

Potential physical, biological or chemical effects on materials and on their enclosures and furnishings shall be evaluated but not be limited to the following:

— fire hazards, heat, smoke and soot;

— discharge of sprinklers;

— clear and contaminated water;

— interruption of core services;

— hazards from the collection itself (radioactivity, poisons, asbestos, explosives, etc.);

— Use of stack areas for non-collection storage purposes, including staff work areas and facility maintenance equipment and supply storage.

The collections vulnerability assessment shall be based upon an accurate documentation of the collections preservation conditions, including:

— conditions of collections;

— all types of materials and media;

— all types of enclosures and their description;

— all storage furnishings in which collections are kept.

Special attention should be drawn to some collections materials that emit volatile compounds. This list shall reflect all changes in location.

The collections vulnerability assessment shall include an independent evaluation of the effectiveness of fire suppression systems and their full compliance with standards. The system shall be periodically tested to ensure that it can extinguish or control the fire in the fuel package.

NOTE Changes in type of storage, ceiling construction and room elevations can alter the effectiveness of the fire suppression systems.

The collections vulnerability assessment shall consider an individual event and the accumulative effect of multiple minor events, including:

— physical forces;

— thieves, vandals, displacers;

— fire;

— water;

— pests;

— pollutants;

— light;

— incorrect temperature;

— incorrect relative humidity;

— custodial neglect and dissociation.

Table 3 ranks the severity of collection vulnerability.

Table 3 — Collections vulnerability rankings

Devastating	A large proportion of collections or high priority collections are at risk of being lost, destroyed or damaged beyond restoration. Enclosures are non-existent or unreliable.
Severe	Parts of sensitive collections are at risk of damage beyond restoration. A large proportion of collections or irreplaceable collections can be damaged or contaminated but treatment is possible. One or several repositories need to be evacuated.
Noticeable	A limited number of collections are at risk of damage beyond restoration. The repositories environment is under control.
Minor	There is no risk of loss of irreplaceable collections. Irreplaceable collections and sensitive materials are protected by enclosures. Provisions for basic treatment or replacement of enclosures are available.

4.2.5 Assessment of potential damage or loss

The emergency committee shall identify the conditions that could provoke damage or loss of collections. Scenarios shall consider the possible multiplier effects and their adverse effects including:

— Requirements of overall plans or local authorities plans;

— Damage to essential building installations such as electricity, water, ventilation, air conditioning, security systems;

— Damage to equipment such as storage furniture;

— Inaccessibility to the building for an extended period of time.

4.2.6 Risk analysis

The risk analysis shall consider consecutively distinct risks.

For each risk, the ranking specified in Table 4 can be applied.

Table 4 — Risk rankings

Very high	The risk is totally unacceptable. Immediate measures shall be taken to reduce these risks and mitigate hazards.
High	The risk is unacceptable. Measures to reduce risk and mitigation hazards should be implemented as soon as possible.