



Developing Evacuation and Salvage Plans for Works of Art and Heritage Buildings

CFPA-E Guideline No 07:2023 S





The CFPA Europe develops and publishes common guidelines about fire safety, security, and natural hazards with the aim to achieve similar interpretation and to give examples of acceptable solutions, concepts, and models. The aim is to facilitate and support fire protection, security, and protection against natural hazards across Europe, and the whole world.

Today fire safety, security and protection against natural hazards form an integral part of a modern strategy for survival, sustainability, and competitiveness. Therefore, the market imposes new demands for quality.

These Guidelines are intended for all interested parties and the public. Interested parties includes plant owners, insurers, rescue services, consultants, safety companies and the like so that, in the course of their work, they may be able to help manage risk in society.

The Guidelines reflect best practice developed by the national members of CFPA Europe. Where these Guidelines and national requirements conflict, national requirements shall apply.

This Guideline has been compiled by the Security Commission and is adopted by the members of CFPA Europe.

More information: www.cfpa-e.eu



Copenhagen, March 2023
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Key words:

1 Introduction

It is only human to assume that not having suffered any losses in the past would automatically lead to a future of the same nature. On that point, a court once expressed the following opinion:

Experience tells us that we have to expect a fire developing at any time. The fact that certain buildings have not suffered any fire loss for decades does not constitute evidence of there being no hazard but rather of good fortune for the parties affected who have to expect that this could change any time (Gelsenkirchen Administrative Court, 5 K 1012/85 of 14 Nov. 1985).

Considering that the possibility of a loss cannot be ruled out with 100 % certainty, every museum, art collection or library should have a plan that stipulates what should be done before, during and after such a loss scenario in order to avoid panic, helplessness and chaos.

The individual circumstances of every building housing works of art and cultural assets in terms of its location, construction, occupancy, frequency of visitors and type of exhibits inventory make it necessary to adapt evacuation and salvage plans for works of art and heritage buildings to these givens. In this context, special precautions for exhibits on loan may be necessary.

Contingency plans should cover a period of 48 hours immediately following the loss. During this period, the course for successful salvage measures is set. The plans also provide a good basis for emergency measures in case of hazards that are imminent but have not occurred yet (e.g. floods, storms and the like).

The general recommendation for burglaries is not to attempt to salvage stolen works of art or heritage assets without the agreement of the authorities (e.g. police) and any insurer in order to avoid inadvertently encouraging art-extortion ("art-napping").

In general, timely implementation of evacuation and salvage measures immediately following the loss is critical for loss minimisation.

2 Scope

These Guidelines have been designed for museums, libraries, archives, churches and other buildings housing works of art and heritage assets such as warehouses of forwarding companies, galleries and trade exhibition centres.

2.1 Validity

This document Developing Evacuation and Salvage Plans for Works of Art and Heritage Buildings, CFPA-guideline No 07 : 2023/S, is the revision of guideline No 07 : 2010/S, and it is valid from April 1st, 2023.

3 Risk Characteristics

In general, museums, libraries, archives and other buildings housing works of art and heritage assets have the following risk characteristics in common:

- High concentration of valuable assets
- Irreplaceable collections and individual exhibits
- High sensitivity of the exhibits to external influence
- Unpredictable crowd behaviour (visitors)

4 Preventive Measures

The prerequisite for a safe operation is the formulation/development of a comprehensive protection and safety concept and its full implementation for the respective building. All safeguards against fire, burglary, theft, hold-ups, vandalism, water leaks and natural disasters (flood, storm etc.) must fit seamlessly. They contribute to avoiding and/or minimizing any negative impacts on works of art and heritage buildings. Regular inspections, maintenance and repair measures ensure the continued reliability of installed technical safeguards.

National regulations may overrule these recommendations.

Important factors include the following:

- Fire safety doors shall be kept closed at all times and it is imperative to make sure that they are not wedged open. In case operational reasons make it necessary to leave them open for a longer time, only hold-open systems approved by building supervision agencies shall be used (cf. CFPA No 2/F as well as CFPA No 6/S).



Figure 1: Museum Ludwig, Cologne

- Fire safety, intruder and burglary alarm systems shall be regularly inspected (if possible, annually), maintained and, if necessary, repaired (cf. European and national regulations).
- Openings in walls with fire safety functions (firewalls) will be sealed with flame-retardant material.
- Flood protection structures have to be inspected and serviced (cf. CFPA No 1/N).
- The required width of escape routes and exits leading outside must be usable and cleared of any objects or obstacles.
- Appropriate safeguards must be installed to minimise the risk of burglary and theft. They shall be developed in close cooperation with the police and the insurer (cf. CFPA No 29/F, CFPA No 30/F as well as CFPA No 5/S).



Figure 2: Courtesy of Vaduz PR and information service

Personnel shall be trained (cf. Annex B) and instructed in the implementation and realisation and ensure the operational readiness of protection measures.

The possibility of a loss cannot be ruled out despite all preventive actions. This is where a contingency plan is useful.

5 Contingency Planning

5.1 How to Compose a Planning Team

It makes sense to bring together decision-makers and experts from different disciplines and select a coordinator to develop contingency plans. The planning team should include the following:

- Representatives of the museum's management/director (incl. person responsible for communication)
- Fire protection manager
- Safety manager
- Head of IT
- Conservator
- Head of facilities management
- HR manager
- Fire brigade
- Police
- Security company
- Insurer

5.2 Roles and Responsibilities of the Planning Team

5.2.1 Risk Assessment

A risk assessment should be carried out with a view to the control of fire (cf. CFPA No 4/F), natural disasters, burglary, theft, vandalism, hold-up and the repercussions thereof.

For this purpose, the structural, operational and organizational conditions shall be assessed:

- Risks resulting from the location (if necessary, consult specialists)
- Structural and organisational circumstances / conditions such as:
 - Sensitivity of the structural shell
 - Possible access for emergency services
 - Clear and accurate identification of the location on the part of the response forces (fire brigade, police, etc.)
- Accessibility of authorised personnel
- Storage of packaging material
- Risks resulting from the type of the facilities / equipment, e.g.
 - high proportion of plastic materials, in case of fire risk of smoke, aggressive particulates and gases
 - high content of wood in heritage buildings, rapid spread of fire, sensitivity to humidity (vapour)
- What kind of technical facilities (e.g. facilities such as heating, air conditioning and ventilation system, lift, fire suppression system) are available which in case of an emergency pose a risk potential themselves?
- Special occupancies (meetings, events and the like)
- Are there any secondary installations (e.g. workshops, catering areas etc.) or any secondary occupants or neighbours?
- Risks posed by repair work (e.g. roofing, welding and soldering; consider fire permit procedure). For information on Hot works cf. CFPA No 12/F
- Risks posed by sub-standard maintenance (mildew as a result of humidity, poorly serviced air condition systems, defects in electrical systems, damage of water pipes caused by frost etc.)
- Risks posed by biological agents e.g. mold, rodents, insects
- Transportation (cf. CFPA No 29/F)



Figure 3: Museum's depot

Preventive measures (e.g. procurement of suitable extinguishing agents) derived from the risk assessment must be taken.

5.2.2 Inventory Lists

Inventory lists must include the following additional details based on the object's ID:

- Condition (tested)
- Size and weight
 - Material
 - Photo documents
 - Evidence of ownership
 - Storage location (verify location)
- Storage conditions
- Transport options
- Value & Prioritisation for salvage

Note: Inventory lists must be continuously updated!

5.2.3 Works of Art and Exhibits – Properties

Account should be taken of risks especially resulting from the particular features (material, design) of the works of art and heritage buildings and the individual protective systems.

Note: Consult expertise of specialist conservators.



Figure 4: Courtesy of hasenkamp Internationale Transporte GmbH

5.3 Emergency Plan

In order to develop evacuation and salvage plans on the basis of the above risk assessment, the following considerations should be made and measures defined:

- Predict the possible scenario:
 - What could happen?
 - Which areas could be affected?
 - Who is going to initiate evacuation measures?
- With the specialist conservators:
 - Talk about the possible hazards for the objects, exhibits, collections
 - Define necessary emergency measures
- Emergency process organisation:
 - Appointment of emergency coordinators
 - Designation of decision-makers and authorities
 - Prioritisation by value (what has to be saved first) – if not addressed elsewhere
 - Internal and external communication (cf. CFPA No 2/N)
- Plans, preventive and prepared measures etc. shall be reviewed on an annual basis or whenever circumstances change (special exhibitions, exhibits on loan etc.).

The staff of the relevant establishment should be briefed regularly on the status of progress during the development of the contingency plan in order to ensure feedback. Emergency plans can only be fully effective if they are supported and committed to by the staff. It is advisable to regularly validate that data on designated persons (names, functions, telephone numbers) are up to date.

See also CFPA No 29/F.

5.3.1 Before the Emergency

<i>What?</i> (contents of plan)	<i>Who does what?</i> (roles)	<i>When?</i>	<i>Where?</i>
Alarm control panel (see Annex A)			
Provision of emergency aids (covers, drying equipment, blankets, gloves, pallets, packaging material, industrial aspirators, templates for documentation, cameras, necessary tools/keys to disengage mechanical security locks, emergency kit for conservators, etc.)			
Storage capacities (external/internal) contingency warehouse, cold store			
Transport capacities Forwarding agent for art	Note: If possible, coordinate with conservator		
Lyophilisation (vacuum), freeze drying Compile address list of specialist companies			
Recovery and return in case of loss			
Define possible priorities for recovering the works of art			
Senior manager on duty Calendar			
HR resources available Compose rescue teams			
Site inspection/introduction: Staff, fire brigade, police, security service provider (annually)			
Monitoring of safeguards Plan update Fire brigade inspection/exercise, fire drill, regular site visits, management, availability of emergency aids			
Coordinate contingency plan with insurer			

5.3.2 During the Emergency

<i>What? (contents of plan)</i>	<i>Who does what? (roles)</i>	<i>When?</i>	<i>Where?</i>
Calling emergency services			
Alert visitors, staff, contractors and neighbours			
Evacuation of visitors and staff and immediate corrective action Convene emergency team (coordination of operations, advisory support to external forces and relief teams, public relations) Specify priorities for the recovery of works of art			
Initiation and implementation of evacuation measures			
Sampling by specialised conservators and initiation of harmful substance analysis to determine the next steps			
Documentation of evacuated works of art in writing and with photos			
Contact insurer			

5.3.3 After the Emergency

<i>What? (contents of plan)</i>	<i>Who does what? (roles)</i>	<i>When?</i>	<i>Where?</i>
Security structural measures, surveillance, intermediate storage			
Involvement of insurer Continuation of rescue, recovery and restoration measures			
Measures to ensure business continuity Structural partition			

Annex A Alarm Control Panel (Example)

Emergency phone numbers (please alert in this order)			
	business	private	mobile
Fire brigade			
Police			
Emergency coordinator			
Emergency coordinator notifies: <ul style="list-style-type: none"> • Management/Director of museum • Head of facilities management • Conservator • Fire protection manager • Security company • Manager on duty • Insurer • HR manager 			
General code of conduct			
Individual emergency measures			

Annex B Training of Personnel

Overview of courses : see www.cfpa-e.eu

Special courses:

Fire and Security for museums (specialists course)

Annex C Literature List

- (1) CFFPA-EUROPE Guideline No 2/N Business Resilience, An Introduction to Protecting Your Business
- (2) Bruno Klotz-Berendes
Notfallvorsorge in Bibliotheken Deutsches Bibliotheksinstitut Berlin, 2000
<http://hdl.handle.net/2003/5596>
- (3) Lecture manuscripts of IFS workshop
„Sicherheit in Museen“ Kassel, 10 Mai 2000 www.ifs-kiel.de
- (4) Wilhelm Kallenbach, Cäsar Rohlf, Rudolf Princ, Klaus Kempe, Hermann-Josef Dornhoff, Günter Wagner, Werner Boeck
Brandschutz in Baudenkmälern und Museen AG öffentlich-rechtliche Versicherung im VdS e. V., Karl Thiemig, Graphische Kunstanstalt und Buchdruckerei AG, Pilgersheimerstr. 38, 81543 München
- (5) Verband der Restauratoren e.V. (VDR)
Weberstr. 61, 53113 Bonn www.restauratoren.de/bonn.html
- (6) Prof. Dr. Friederike Waentig
Fachhochschule Köln Institut für Restaurierungs- und Konservierungswissenschaft Ubierring 40, 50678 Köln www.re.fh-koeln.de
- (7) Emergency Response and Salvage Wheel
National Task Force on Emergency Response 1730 K Street, NW Suite 566, Washington, DC 20006 www.heritagepreservation.org
- (8) Handhabung und Lagerung von mobilem Kulturgut
Joachim Huber, Karin von Lerber Landschaftsverband Rheinland transcript Verlag, Bielefeld, 2003 ISBN 3-89942-140X
- (9) Günter S. Hilbert Sammlungsgut in Sicherheit Gebr. Mann Verlag, Berlin, 2002
- (10) DRIESSENS J.
Dans les bibliothèques : Sauvegarder le trésor documentaire scientifique et culturel in Revue Belge du Feu (B) - 1987 - n° 86, juin - pp 33-37
- (11) CENTRAAL LAB. ONDERZOEK VOORWERPEN VAN KUNST
Calamiteiten - Amsterdam (NI) : CL onderzoek voorwerpen, sd - pm
- (12) CENTRAAL LAB. ONDERZOEK VOORWERPEN VAN KUNST
Museale calamiteiten en calamiteitenplanning - Amsterdam (NI): CL onderzoek voorwerpen, 1992 - 81 p
- (13) CENTRAAL LAB. ONDERZOEK VOORWERPEN VAN KUNST MOSK L.
Voor het kalf verdronken is : Handleiding voor het maken van een museaal calamiteitenplan - Amsterdam (NI): CL onderzoek voorwerpen, 1992 - 102 p (CL informatie, 10)
- (14) FPA
Heritage under fire : A guide to the protection of historic buildings - 2 ed, London (UK): FPA – 1995 - 112 p
- (15) EMERY Steve, Counter culture in Fire prevention (UK) n° 413, February, 2007 - pp 18-21 (4 p)
- (16) CFFPA-EUROPE
Guideline 29/F : Protection of paintings : Transport, exhibition and storage; sl : CFFPA Europe, 2019 - 40 p

Annex D European guidelines

Fire

Guideline No 1 F	Internal fire protection control
Guideline No 2 F	Panic & emergency exit devices
Guideline No 3 F	Certification of thermographers
Guideline No 4 F	Introduction to qualitative fire risk assessment
Guideline No 5 F	Guidance signs, emergency lighting and general lighting
Guideline No 6 F	Fire safety in care homes
Guideline No 7 F	Safety distance between waste containers and buildings
Guideline No 8 F	Preventing arson – information to young people
Guideline No 9 F	Fire safety in restaurants
Guideline No 10 F	Smoke alarms in the home
Guideline No 11 F	Recommended numbers of fire protection trained staff
Guideline No 12 F	Fire safety basics for hot work operatives
Guideline No 13 F	Fire protection documentation
Guideline No 14 F	Fire protection in information technology facilities
Guideline No 15 F	Fire safety in guest harbours and marinas
Guideline No 16 F	Fire protection in offices
Guideline No 17 F	Fire safety in farm buildings
Guideline No 18 F	Fire protection on chemical manufacturing sites
Guideline No 19 F	Fire safety engineering concerning evacuation from buildings
Guideline No 20 F	Fire safety in camping sites
Guideline No 21 F	Fire prevention on construction sites
Guideline No 22 F	Wind turbines – Fire protection guideline
Guideline No 23 F	Securing the operational readiness of fire control system
Guideline No 24 F	Fire safe homes
Guideline No 25 F	Emergency plan
Guideline No 26 F	Fire protection of temporary buildings on construction sites
Guideline No 27 F	Fire safety in apartment buildings
Guideline No 28 F	Fire safety in laboratories
Guideline No 29 F	Protection of paintings: transports, exhibition and storage
Guideline No 30 F	Managing fire safety in historic buildings
Guideline No 31 F	Protection against self-ignition and explosions in handling and storage of silage and fodder in farms
Guideline No 32 F	Treatment and storage of waste and combustible secondary raw materials
Guideline No 33 F	Evacuation of people with disabilities
Guideline No 34 F	Fire safety measures with emergency power supply
Guideline No 35 F	Fire safety in warehouses
Guideline No 36 F	Fire prevention in large tents
Guideline No 37 F	Photovoltaic systems: recommendations on loss prevention
Guideline No 38 F	Fire safety recommendations for short-term rental accommodations
Guideline No 39 F	Fire protection in schools
Guideline No 40 F	Procedure to certify CFPA-E Fire Safety Specialists in Building Design

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Natural hazards

Guideline No	1 N	Protection against flood
Guideline No	2 N	Business resilience – An introduction to protecting your business
Guideline No	3 N	Protection of buildings against wind damage
Guideline No	4 N	Lighting protection
Guideline No	5 N	Managing heavy snow loads on roofs
Guideline No	6 N	Forest fires
Guideline No	7 N	Demountable / Mobile flood protection systems
Guideline No	8 N	Ensuring supplies of firefighting water in extreme weather conditions
Guideline No	9 N	Protection against hail damage

Security

Guideline No	1 S	Arson document
Guideline No	2 S	Protection of empty buildings
Guideline No	3 S	Security systems for empty buildings
Guideline No	4 S	Guidance on keyholder selections and duties
Guideline No	5 S	Security guidelines for museums and showrooms
Guideline No	6 S	Security guidelines emergency exit doors in non-residential premises
Guideline No	7 S	Developing evacuation and salvage plans for works of art and heritage buildings
Guideline No	8 S	Security in schools
Guideline No	9 S	Recommendation for the control of metal theft
Guideline No	10 S	Protection of business intelligence
Guideline No	11 S	Cyber security for small and medium-sized enterprises
Guideline No	12 S	Security Guidelines for Businesses

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Comments and corrective actions:

19 GUIDELINE No 7:2023 S

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