

PAS 64

Professional water damage mitigation and initial restoration of domestic dwellings

Code of practice



Business
Information

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Foreword

This Publicly Available Specification has been developed in collaboration with the British Standards Institution (BSI). Acknowledgement is given to the following organizations that have co-sponsored and been involved in the development of this specification.

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- BDMA
- IICRC

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As a code of practice, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

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This Publicly Available Specification is not to be regarded as a British Standard.

This Publicly Available Specification does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with this Publicly Available Specification does not of itself confer immunity from legal obligations.

In particular, attention is drawn to the following statutory regulations:

- The Management of Health and Safety at Work Regulations 1999 [1]
- The Electricity at Work Regulations 1989 [2]
- The Provision and Use of Work Equipment Regulations 1998 [3]
- The Special Waste Regulations 1996 [4]
- The Health and Safety at Work etc Act 1974 [5]
- The Workplace (Health, Safety and Welfare) Regulations 1992 [6]



Introduction



This Publicly Available Specification provides guidance and best practice for the restoration of a water damaged building from the initial incident to the point at which re-instatement and re-decoration commence.

The goal of the water damage restoration industry and insurance companies is to return properties affected by water damage to a pre-loss condition, except in cases where poor maintenance and pre-existing conditions prohibit this, as determined by a technically competent person.



There are over 20 million properties in this country exhibiting a diverse range of construction techniques. The inhabitants and owners of these properties often require an individual approach to reach the pre-loss condition.

Historically, the response to water damage has been dealt with by a number of individuals with a myriad of skills, such as builders, carpet cleaners, caretaking staff, electricians and plumbers. From this background of skills the water damage restoration industry has developed into a profession in its own right. New innovative products and technology are developing and with this a demand for higher competency.

This document is intended to offer guidelines to which the professional water damage company should operate.



1 Scope

This Publicly Available Specification (PAS) gives recommendations for the restoration of water-damaged buildings and contents. It is intended for use by professional water damage restoration organizations, but may also be of interest to the insurance community, others involved in the assessment and restoration of water-damaged domestic dwelling and their contents, and those persons affected by water damage.

It is applicable to all common forms of water damage, including river flooding, surcharging of drainage systems, sewage systems, storm water run-off, inundation of seawater and bursting/overflowing/leaking of internal domestic plumbing and heating installations. It is also applicable to water damage which is the secondary result of other incidents, such as motor vehicle impact, storm or extinguishment water following a fire.

It is not applicable to building reinstatement and redecoration methods.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 5499, *Graphical symbols and signs – Safety signs, including fire safety signs – Part 1: Specification for geometric shapes, colours and layout.*

3 Terms and definitions

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

- 3.1**
air

invisible gaseous substance which has the capacity to carry moisture in varying, measurable quantities
- 3.2**
contaminant

substance which causes harm to humans, animals, wildlife and the environment

NOTE This can include mould, mildew, fungi, bacteria, viruses, asbestos, lead, arsenic, oil, sewage and effluent.
- 3.3**
drying

process to remove standing water and absorbed moisture from wet materials

NOTE The method chosen should only be performed by appropriately trained technicians/personnel.
- 3.4**
decontamination

removal of surface or air borne particles which are harmful to humans
- 3.5**
extraction

initial removal of excess water from buildings and contents

NOTE Examples include vacuuming and pumping.
- 3.6**
pre-loss condition

condition of the building and contents at the time before the incident
- 3.7**
relative humidity

percentage measure of the amount of water vapour actually held compared to the maximum which could be held in that particular weight of air, at a given temperature
- 3.8**
schedule of works

complete, detailed listing of required tasks, to return the building and contents to a pre-loss condition
- 3.9**
site

address or location at which work is carried out on a water damage restoration
- 3.10**
specific humidity

actual weight of water vapour in a specific amount of air expressed as either kilogram per kilogram (kg/kg), grams per kilogram (g/kg) or grains per pound (gpp)
- 3.11**
secondary damage

damage which may occur from humidity absorption, from lack of, or incorrect dehumidification, or too much uncontrolled evaporation

- 3.12**
vapour pressure

force exerted by humidity on the surrounding environment

NOTE Vapour pressure is directly related to specific humidity.
- 3.13**
water damage

impairment of the habitation and function of buildings and contents by the unwanted intrusion of water and high humidity
- 3.14**
initial water damage restoration

act or process of restoration of buildings and contents that is not complete until returned to pre-loss condition
- 3.15**
method statement

written procedure outlining steps and procedures to perform a desired task
- 3.16**
mitigation

act of reducing loss or damage to building and contents
- 3.17**
technically competent person

person who has demonstrated a level of skill, knowledge, attitude, training and experience to reasonably perform a desired task
- 3.18**
loss assessment

collection of data to determine the degree of loss to the physical structure and contents
- 3.19**
risk zone

area in which a level of risk has been identified
- 3.20**
drying goals

target moisture level based on either a dry standard or known equilibrium moisture content (EMC) or equilibrium relative humidity (ERH) or other accepted method of measuring moisture
- 3.21**
cleaning goals

target cleanliness level based on visible contamination, presence of odour, and measurement of actual levels by a proven method
- 3.22**
buildings and contents

main dwelling and associated out buildings and contents, refers to items therein

NOTE If the property is insured, refer to the terms of the insurance policy for clarification of what is defined and covered under buildings and contents.

4 Management

4.1 General

Management of water-damaged sites requires a specialist written procedure including specialist training and methods.

4.2 Management responsibility

Management should implement and maintain a quality management system, including health and safety, traceability of operational activity and method statements for operational procedures. All staff should have knowledge of and comply with the standard operating procedures.

Senior personnel should ensure that this policy is communicated, implemented and maintained throughout the organization.

NOTE 1 This will be individual to the organization.

The effectiveness of the procedures should be measured, monitored and reviewed annually to identify opportunities for improvement.

NOTE 2 Attention is drawn to BS EN ISO 9001.

4.3 Documentation

The quality management system should contain or refer to the following documentation:

- a) an organizational chart showing lines of authority, responsibility and allocation of functions stemming from senior personnel;
- b) procedures covering the operation and health and safety of the water damaged site;
- c) procedures covering the identification of non-conformity and actions taken to resolve such non-conformity;
- d) emergency action procedures;
- e) all health and safety documentation, including risk assessments and method statements (see Clause 5).

4.4 Records

Record systems should be established to suit particular circumstances.

Records should:

- a) demonstrate that operational procedures have been effectively used and implemented;
- b) demonstrate compliance with this PAS;
- c) demonstrate that where compliance is not achieved, appropriate risk analysis methods have taken place to determine the safety of the water damage restoration site;
- d) demonstrate appropriate means have been applied to ensure identified risks have been minimized, and are within legally established safety limits;
- e) demonstrate that relevant and adequate training has been provided for all staff involved in the health and safety and operation of the water damaged site (see 4.5);
- f) be identified, managed and disposed of in such a way as to ensure the integrity of the process, and confidentiality of the information;
- g) be kept for a period of at least 6 years.

4.5 Training

Management should ensure that all personnel whose work is concerned with water damage restoration have received the appropriate training to a competent level.

5 Health and Safety

5.1 General

Management should define and document a health and safety policy for the general operation and safety for all water damage sites. This policy should be reviewed annually or as and when legal requirements dictate.

5.2 Risk assessment

Management should define and document a risk assessment procedure.

NOTE 1 Attention is drawn to the Management of Health and Safety at Work Regulations 1999 [1].

A risk assessment procedure should define safe systems of work whilst operating at the water damage site.

Where the risk assessment procedure identifies risk to occupants or potential visitors to the site, warning signs identifying the risk should be placed in conspicuous areas prior to the entering of a risk zone. All signs posted should conform to BS 5499.

NOTE 2 See Annex G for examples of warning signs.

A minimum of one poster should be placed per entrance.

A risk assessment on each water damage site should be:

- a) the responsibility of a technically competent person;
- b) undertaken at each visit to the building;
- c) recorded and kept by the undertaking party. A system for retrieval and storage should be designed and implemented.

5.3 Equipment testing

Any Portable Electrical Appliances (PAT) test should be carried out by a trained and technically competent person, who can show documentary evidence if required. The technically competent person undertaking the testing should have the relevant and recognized certification.

NOTE Attention is drawn to the Electricity at Work Regulations 1989 [2] and the Provision and Use of Work Equipment Regulations 1998 [3].

5.4 Cleaning of drying equipment

The performance of drying equipment will be affected in a negative way by dirt and contamination. Regular cleaning of equipment (as recommended by the manufacturer) should take place in addition to normal servicing. Cleaning of the equipment should take place after it has been used on contaminated sites containing for example mould, asbestos, lead, arsenic or sewage.

