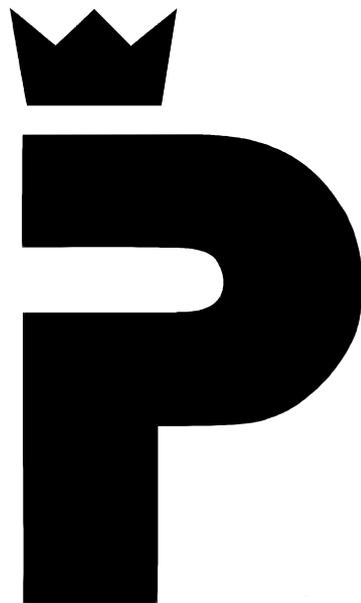


Certification rules for fire resisting storage cabinets

SPCR 002



Abstract

Certification rules for fire resisting storage cabinets

Products can be certified for P-marking by SP Swedish National Testing and Research Institute. Issue of a certificate is subject to establishment that the product meets the requirements of relevant standards, regulations etc., and that the manufacturer or importer operates an approved inspection and quality control scheme.

This document sets out the certification rules for fire resisting storage cabinets. The rules include details of the technical requirements in respect of fire resistance, together with requirements relating to ongoing inspection.

The technical requirements are based on the Nordtest NT FIRE 017 [1] test method and on European standard EN 1047-1 [2]. The cabinets are divided into fifteen fire resistance classes (e.g. S 120 P or NT FIRE 017 - 60 Data).

Continuous inspection involves primarily inspection by the manufacturer or importer, together with surveillance inspection by SP. The manufacturer's or importer's inspection relates mainly to finished products, while surveillance inspection is carried out by SP through visits to the manufacturer or importer. During these visits, SP will be concerned to see that the manufacturer's or importer's own inspection procedures are operating as intended. In addition, samples of the finished products will be taken for testing.

Key words: Certification, P-marking, Fire resisting, Storage cabinets, Requirements, Quality control, NT FIRE 017, EN 1047-1

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Appendix 1 Model form of product certificate

Preface

This report sets out the rules for certification, technical requirements and requirements in respect of ongoing surveillance of fire resisting storage cabinets.

Together with the requirements in respect of ongoing surveillance as set out in Sections 4 and 5, the technical requirements as set out in Section 3 have been drawn up by SP in conjunction with interested manufacturers and importers. Certification, as described in Section 2, is performed by SP Certification.

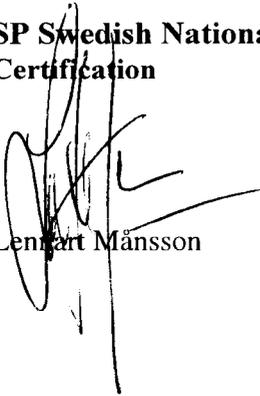
Continuous inspection involves inspection by the manufacturer/importer and surveillance inspection by SP. Surveillance inspection is carried out through visits to the manufacturer or importer, and involves assessment of the manufacturer's/importer's own inspection procedures. In addition, samples of the finished products will be taken for testing in order to verify that the manufacturer's/importer's inspection procedures are operating as intended.

The certification rules are based on current standards, but may be revised in future, e.g. to harmonise them with European or international standards. Revision may also be necessary if new regulations are introduced or if a need for such revision is shown by the results of experience of application of the rules. If clarification or complementation of the rules becomes necessary, an appropriate PM document will be issued, and will also be incorporated in future issues of the rules.

This version of the rules replaces the previous version, dated August 1999.

Borås, June 2002

**SP Swedish National Testing and Research Institute
Certification**



Lenart Månsson

1. Introduction

1.1 General

Certification involves confirmation by an independent third party that a product fulfils requirements set out in standards or some other form of specification. Certification by SP is performed by SP Certification, a unit that is completely separate from the other testing and inspection units. It answers to a certification board, whose members are drawn from across the range of industry areas involved. The board can appoint expert groups for various product areas, e.g. as technical working parties. Certification of products by SP is performed in accordance with EN 45011 [3].

The requirements that must be fulfilled are set out in special certification rules (SPCR), developed for each product sector. Before certification starts, the certification rules must - except in those cases where the rules are based entirely on regulations issued by public authorities - have been discussed with interested parties and then have been approved by SP's certification board. This procedure ensures that certification is based on rules that have been thoroughly considered, are relevant and are firmly based.

Products which, after an initial assessment - which includes testing and other aspects - show that they fulfil specified requirements can be certified by SP. This certification is confirmed by issue of a certificate, one of the rights of which is usually permission (under licence) to use a certification symbol. Ongoing inspection/surveillance, consisting of the manufacturer's/importer's own inspection procedures and SP's surveillance inspection, ensures that the requirements relating to the product continue to be fulfilled during the validity period of the certificate.

SP certifies for several different certification schemes, such as the CE symbol, the rules for which are based on requirements set out in EU directives. SP's own certification approval symbol, the **SP**-symbol, applies only to SP's own certification system.

1.2 Scope

These certification rules apply for determination of the fire resistance of fire resisting cabinets and boxes intended for storage of paper, diskettes, video tape etc. In the rest of this document, use of the term 'cabinet' shall be taken also to include boxes.

2. Conditions for certification of fire resisting cabinets

2.1 General

Certification consists of an initial assessment of the product and of its manufacturer's or importer's continuous inspection procedures. When the certification requirements have been fulfilled, a certificate is issued and applies thereafter provided that the product continues to fulfil the requirements and that the continuous inspection procedures are operating as intended.

Other terms and conditions are set out in Section 6.

2.2 Application for certification

Applications for certification shall be submitted in writing, and shall be accompanied by:

- technical data (test report, product description), as set out in Section 2.3.1;
- a description of the manufacturer's or importer's own inspection procedures, as set out in Section 2.3.2; *and*
- proposal for marking, as set out in Section 2.3.3.

In addition, for safes, a certificate that the safes fulfil the requirements of SS 3493 [4] and SS-EN 1143-1[5] / LPS 1183 [6] is required.

2.3 Initial assessment

The initial assessment involves examination of the submitted documents for compliance with the requirements of these rules. When assessment is complete, and when the applicant's material, is regarded as fulfilling the requirements, SP will visit the manufacturer/importer to check that he possesses the necessary facilities and organisation to perform the continuous inspection as required and described. If SP decides that this is the case, it will sign a contract with the manufacturer/importer concerning continuous inspection in accordance with Section 2.3.2 below, after which a certificate will be issued. See Appendix 1 for a model form of certificate.

2.3.1 Technical data

The applicant shall submit technical data for the product concerned, giving the following information:

Test report

Showing that the technical requirements in accordance with Section 3 are fulfilled.

Product description

Drawings and other documents shall contain:

- a view of the cabinet from the front, together with horizontal and vertical sections;
- detail sections showing connections between the door and the inner and outer shells;
- detail section(s) through the lock;
- positions of the locking bolts, lock casings and hinges;
- methods of joining parts, e.g. spot welding or adhesive bonding;

- information on all materials and components used. As appropriate, this list shall contain details of materials, constituents, product names, qualities, densities, thermal conductivity at room temperature (20-25 °C) and dimensions. In the case of materials enclosed in packets, details shall be given of the number of packets, weight per packet and description of the packaging;
- the weight of the cabinet;
- the product name or other identification.

The drawings shall show all dimensions, together with a drawing name or number, date and latest revision date. Non-certified products shall not be shown on the drawings, unless it is clearly stated that they are not certified.

2.3.2 Requirement for continuous inspection

Continuous inspection shall ensure that certified products continue to fulfil the requirements in these certification rules. It shall consist of the manufacturer's/importer's own inspection, as described in Section 4, complemented by surveillance inspection, performed by SP, as described in Section 5.

The extent of the surveillance inspection shall be agreed and set out in the contract between the manufacturer/importer and SP.

2.3.3 Marking

Products entitled to display SP's certification symbol shall also show information on the number of the certificate, product name or other identification, fire resistance class, identification of the testing method or standard and serial number or equivalent of the product. Marking shall be legible, durable and applied to the inside of the cabinet.



SP's certification symbol (P-mark) in alternative designs

2.4 Validity of the certificate

The validity of the certificate is normally five years. Depending on the content of reports from surveillance inspection, and other factors, the validity time may be extended after application from the holder of the certificate.

2.5 Changes to the certified product

Before changing the design, materials or construction of the product, the holder of the certificate shall notify SP of the intended changes. SP will decide whether the changes can be approved, which will normally be notified by letter.

3. Technical requirements

3.1 Type testing and requirements

Cabinets are divided into 15 classes, depending on the temperature rises and relative humidity inside the cabinet, fire resistance time and test method. Classification is as shown in the following table.

Fire resistance class ¹⁾	Maximum permissible temperature rise inside the cabinet (°C)	Maximum permissible relative humidity inside the cabinet (%)	Test method
S 60 P	150	No requirement	EN 1047-1 [2]
S 60 D	50	85	-''-
S 60 DIS	30	85	-''-
S 120 P	150	No requirement	-''-
S 120 D	50	85	-''-
S 120 DIS	30	85	-''-
NT FIRE 017 - 60 Paper	150	No requirement	NT FIRE 017 ²⁾ [1]
NT FIRE 017 - 60 Data	50	No requirement	-''-
NT FIRE 017 - 60 Diskette	30	No requirement	-''-
NT FIRE 017 - 90 Paper	150	No requirement	-''-
NT FIRE 017 - 90 Data	50	No requirement	-''-
NT FIRE 017 - 90 Diskette	30	No requirement	-''-
NT FIRE 017 - 120 Paper	150	No requirement	-''-
NT FIRE 017 - 120 Data	50	No requirement	-''-
NT FIRE 017 - 120 Diskette	30	No requirement	-''-

- 1) The numerals (60/90/120) indicate the time in minutes for which the temperature requirements are fulfilled.
- 2) Or EN 1047-1 [2]

3.2 Application of test results

Test results are applicable for cabinets other than those tested, in accordance with the rules set out in the respective test method.

4. Manufacturer's/importer's own inspection

The manufacturer/importer shall operate inspection procedures to ensure that products displaying the P-symbol fulfil the requirements in these certification rules. These inspection procedures shall be described in a quality manual or corresponding document, and shall fulfil the requirements set out in this section. If the manufacturer/importer has an ISO 9001 [7], ISO 9002 [8] or ISO 9001:2000 quality system that has been certified by an accredited certification body, this can be regarded as fulfilling the following requirements in respect of organisation [4.1], management review [4.2], document control [4.3], control of nonconforming products [4.6], corrective actions [4.7], handling of finished products [4.8] and complaints [4.11].

4.1 Organisation

The organisation of the manufacturer/importer own inspection system shall be described, with the names of those persons responsible for inspection and details of their authority to act in order to prevent sub-standard quality.

A person shall be appointed to represent the manufacturer/importer in respect of manufacturing inspection. This person shall have the necessary authority and responsibility to ensure that the intended quality of the certified products is achieved and maintained.

4.2 Management review, internal auditing

The company management shall perform documented reviews of the company's inspection procedures at regular intervals in order to ensure the efficacy of the procedures.

4.3 Document control

Only the current editions of documents concerning manufacturer's inspection shall be available to the persons concerned in the company. There shall be a list of the documents, and a distribution list for them, together with procedures for the production of new documents, alteration of existing documents and collection of documents that are no longer valid.

4.4 Design control

Design management procedures shall include an instruction that any design changes shall be notified to, and approved by, SP before they can be introduced.

4.5 Testing and inspection

4.5.1 Reception inspection

Reception inspection (goods inward inspection) shall be performed to the extent regarded as necessary in order to verify that incoming materials and products accord with specified requirements. If materials or goods are imported, the manufacturer's documents that certify that the materials or goods supplied fulfil the requirements set out in Section 4.5.3. shall be inspected.

4.5.2 Manufacturing inspection

Manufacturing inspection shall be performed to the extent regarded as necessary in order to ensure that products that are manufactured fulfil specified requirements.

4.5.3 Inspection of finished products

Finished products shall be inspected to the extent regarded as necessary in order to ensure that they fulfil the specified requirements. Manufacturers shall inspect at least two cabinets per week in respect of weights and dimensions (thicknesses of doors, side walls, base, back and top). Importers shall perform the same inspections on at least two cabinets of each type in each received batch. The maximum permissible deviation is $\pm 10\%$ for weight and -5% for dimensions. (If dimensions are less than 100 mm, the maximum permissible deviation is 5 mm.)

Measurements and/or weights need not be inspected in this way if the manufacturer can demonstrate in some other way (e.g. through operation of a properly managed manufacturing process) that the requirements are fulfilled.

4.5.4 Equipment

Equipment shall be calibrated, inspected, adjusted and maintained as appropriate.

4.6 Control of nonconforming products

Products that do not fulfil specified requirements shall be separated from those that do while waiting for a decision on what is to be done with them. Such products may not be sold under the same name or number etc. as certified products.

4.7 Corrective actions

Any failures detected by manufacturer's/importer's own inspection and/or by surveillance inspection shall be investigated by the manufacturer/importer, and appropriate steps shall be taken to correct the situation and prevent a repetition.

4.8 Handling of finished products

Damage and deterioration shall be prevented in connection with handling, storage, packing and delivery.

4.9 Traceability

It shall be possible to trace products that have been supplied back to the relevant production batch, materials batch, casting date etc.

4.10 Marking

Products shall be marked (see Section 2.3.3) when manufacturer's/importer's inspection has shown that the requirements are fulfilled.

4.11 Complaints

Complaints from customers or others in respect of certified products, marking, marketing etc., shall be documented together with details of the action taken in response thereto, with the documentation being kept available for inspection by SP.

4.12 Quality documents – keeping of records

The manufacturer/importer shall be able to confirm, by means of collecting and retaining relevant documents, that the products fulfil specified requirements.

Documentation of inspection and testing shall be of such an extent that the necessary traceability can be assured. Records shall contain comments when results depart from those expected, together with descriptions of actions taken in response thereto.

Archiving times shall be stated for documents relating to manufacturer's/importer's own inspection.

Test and inspection records shall be kept available for inspection by SP, and shall be retained for at least ten years.

5. SP's surveillance inspection

5.1 Execution

Surveillance inspection will be carried out at least once a year, in the form of a visit, of which prior warning will not necessarily be given, by SP to the manufacturer/importer. The manufacturer/importer shall provide unrestricted access to SP's representative for performance of the surveillance inspection.

On these visits, SP will inspect to determine whether the manufacturer's or importer's described inspection procedures are operating as intended, and will perform testing and inspection as described in Section 5.2.

If the manufacturer/importer has a quality management system that is certified by an accredited inspection body, SP's examination of the manufacturer's/importer's own inspection procedures can normally be limited to examination of records and audit reports. Testing and inspection will be carried out as described below in Section 5.2.

Testing and inspection may be performed to a different extent, depending on the type and results of surveillance inspection. This will be set out in the agreement on surveillance inspection.

5.2 Testing and inspection

Within twelve months of first issuing a certificate, SP shall take a sample of a certified cabinet for the first sample testing in accordance with the same method as used for type testing. However, if type testing is carried out on a cabinet regarded by SP as representative of production cabinets, and selected for testing by a third party, the first sample test need be performed only within a period of five (two) years after issue of the first certificate. Thereafter, sample testing will normally be performed every fifth (second) year. (Period in brackets apply to importers.)

If a manufacturer/importer has several certified types of cabinets, random samples may be taken. If the number of certified types of cabinets exceeds ten, two cabinets will be selected, while if the number exceeds 20, then three will be selected. For these purposes, 'type of cabinet' shall be taken to include cabinets that have been certified on the basis of results from the same test occasion.

On each inspection visit, SP will select at least one cabinet for inspection of weight and dimensions. The dimension that will always be checked are the thicknesses of doors, side walls, tops, backs and bases. The maximum permissible deviation is $\pm 10\%$ for weight and -5% for dimensions. (If dimensions are less than 100 mm, the maximum permissible deviation is 5 mm.)

If an importer imports goods from several suppliers, the above rules shall be applied for products from each supplier.

5.3 Surveillance inspection failure

If the manufacturer's/importer's own inspection procedures fail inspection testing and/or examination, the reasons for this failure shall be investigated. The investigation may result in a new surveillance visit, retesting or failure of the manufacturer's/importer's own inspection procedures.

5.4 Reporting

The results of surveillance inspection visits shall be reported in writing to the manufacturer/importer and - if the holder of the certificate is some party other than the manufacturer/importer - also to the holder of the certificate.

6. Other terms and conditions

6.1 General

The terms and conditions in these certification rules, Sections 2 and 6, are based on principles set out in SP's Quality Manual for Certification. Sub-contractors for type-testing and surveillance inspection shall be approved by SP.

6.2 Responsibilities of the certificate holder

The holder of the certificate is responsible for ensuring that the products covered by the certificate and which are marked with the P-symbol fulfil in all respects the requirements of the certification rules to which the certificate refers, and that the products are suited for their purposes and cannot in any other way cause damage or injury. This applies even if the holder of the certificate is not the manufacturer/importer of the product, although the agreement on surveillance inspection has been signed by the manufacturer/importer and SP.

6.3 Use of SP's P-symbol by the certificate-holder

The holder of the certificate shall be entitled to mark the products covered by the certificate with SP's P-symbol, and shall also be entitled to use the symbol in connection with advertising or marketing of the products. Advertising shall not be performed in such a way that there is any risk of confusion between marked and unmarked products.

6.4 Recall of the certificate

With immediate effect, SP can recall certificates definitively or temporarily if:

- a) the holder of the certificate has applied the P-symbol to, or used it in connection with, products that do not fulfil the requirements, *or*
- b) the holder of the certificate has applied the P-symbol to, or used it in connection with, products not covered by the certificate, *or*
- c) surveillance inspection has ceased, or has resulted in failure, *or*
- d) the holder of the certificate has in some other way failed to comply with the terms and conditions associated with the certificate, *or*
- e) the holder of the certificate has not paid fees within the prescribed time, *or*
- f) the holder of the certificate has been declared bankrupt, has gone into liquidation or has transferred the business, *or*
- g) the certificate has been found to have been issued incorrectly. However, the holder of the certificate shall be granted a reasonable time for adjusting to changed circumstances, unless there are special reasons to the contrary; *or*
- h) the product has been found to be unsuitable for its intended purpose, or can cause injury or inconvenience.

In addition to recall of the certificate, misuse of SP's P-symbol or certificate can result in legal action.

6.5 Obligations of the certificate-holder in the event of recall of the certificate

The holder of a certificate who has been notified that the certificate has been recalled, whether definitively or temporarily, shall:

- a) immediately cease making any reference to the certificate in advertisements or other publicity material for the product(s) concerned;
- b) ensure that SP's P-symbol is removed from all products that are in stock, if so required by SP;
- c) meet all costs associated with replacing the sub-standard products by products that fulfil the requirements in the certification rules, if so required by SP.

6.6 Re-issue of a certificate

The same rules apply to re-issue of a certificate that has been temporarily recalled as applied to the original issue of the certificate, as described in Section 2.3. Renewed type-testing will not be required if a period of less than one year has passed since the certificate was recalled, unless the rules for certification, or production conditions, have been changed.

6.7 SP's responsibility

SP is responsible for ensuring that the technical requirements in these certification rules are based on available knowledge and experience, e.g. in the form of accepted standards or corresponding specifications, and also for ensuring that the rules reflect what is generally regarded by the interested parties as a relevant quality level.

SP is responsible for ensuring that examination of certified products in accordance with these rules has been carried out with due care and in accordance with the procedures set out in SP's quality system.

SP is not responsible for certified/P-marked products (see Section 6.2).

6.8 Secrecy

With the following exceptions, all information obtained by SP will be regarded as commercially confidential:

- SP - or other parties working with SP - maintain(s) registers of current certificates. These registers contains details of the names and addresses of the holders of each certificate, the certificate number, certified products, classification, date of issue and validity period.
- SP shall be entitled to publish decisions concerning recall of certificates and misuse of certificates or marking.

6.9 Revision of certification rules

SP reserves the right to change the certification rules. In the event of extension of the validity of certificates issued under older rules, the holder of the certificate will be required to comply with the revised rules. However, unless special reasons to the contrary apply, the holder of the certificate shall be allowed a reasonable time for adjustment to the revised rules.

6.10 Fees

Fees for initial assessment (certification), review and extension of the validity of a certificate and surveillance inspection shall be paid by the applicant / holder of the certificate.

Costs of other inspection, as set out below in Section 6.11, will be billed to the holder of the certificate only if the results of such inspection show that the requirements in the certification rules are not being fulfilled.

6.11 Other inspection

SP shall be entitled, at any time and in/at any place, to carry out inspection of products displaying SP's P-symbol to ensure that the products are fulfilling the requirements in the applicable certification rules.

6.12 Appeals

Appeals against SP's decisions shall be submitted in writing. Action in response to such appeals will be decided by SP's certification board.

7. References

1. NT FIRE 017, Edition 2, Filing cabinets, data cabinets and diskette cabinets: Fire resistance. Published by NORDTEST.
2. EN 1047-1, Edition 1, Secure storage units - Classification and methods of test for resistance to fire - Part 1: Data cabinets (EN 1047-1:1996).
3. EN 45011, Certification bodies - General requirements relating to certification of products.
4. SS 3493, Edition 1, Safes – Specification concerning burglary resistance and fire resistance.
5. EN 1143-1, Edition 1, Secure storage units – Requirements, classification and methods of test for resistance to burglary – Part 1. Safes, strongroom doors and strongrooms (EN 1143-1:1997).
6. LPS 1183, Issue 4, Specification for Safe Storage Units, Part 1: Safes and Strongrooms, published by the Loss Prevention Council, England.
7. EN ISO 9001, Quality systems - Model for quality assurance in design/development, production, installation and servicing (ISO 9001:1994).
8. EN ISO 9002, Quality systems - Model for quality assurance in production, installation and servicing (ISO 9002:1994).
9. EN ISO 9001, issue 2, Quality management systems – Requirements (ISO 9001:2000)



CERTIFICATE

Issued by an accredited certification body

no. XX XX XX



Appendix 1 SPCR 002

Document cabinet, series x

Holder/Issued for/Manufacturer

Företaget AB, Testgatan 1, 111 11 Teststad

Product name

x

Product information

See attached appendices.

Fire resistance class

NT FIRE 017 - 60 Paper

Performance specification

SP's certification rules for fire resisting storage cabinets, SPCR 002.

Marking

The marking in the cabinet shall show the name of the product, its fire resistance class, its serial number or equivalent, the number of this certificate and SP's -symbol.

Validity

This certificate is valid until not longer than Day Month, Year

Miscellaneous

The manufacturer's in-house inspection is under surveillance by SP in accordance with section 4 and 5 of SPCR 002. Other terms and conditions are set out in section 6 of SPCR 002. This certificate replaces the certificate with the same number, dated 19xx-xx-xx.

Borås, day month, year

**SP Swedish National Testing and Research Institute
Certification**

NN
Manager Certification

NN
Technical Officer





Appendix to
CERTIFICATE
no. xx xx xx
dated day month, year

Signed for SP:

Product information

Cabinet	External dimensions (mm)			Internal dimensions (mm)			Weight (kg)
	Width	Depth	Height	Width	Depth	Height	
x	585	450	600	420	310	410	115