



39/41, rue Louis Blanc
92400 COURBEVOIE
Tél. : 01 47 17 64 85
www.certita.fr

Certification body

Notified by

AFNOR Certification

11, rue Francis de Préssencé
93571 LA PLAINE ST DENIS Cedex
Tél :01 41 62 80 00 – Fax :01 49 17 90 00

CERTIFICATION RULES

NF MARK – DOMESTIC SOLAR WATER HEATERS

AFNOR Certification identification number:

NF 441

Ref. Author: **SB - CERTITA**

This version invalidates and replaces the previous version

Review 2 – March 2012

Approval by AFNOR Certification:

March 7th, 2012

First implemented on May 19th, 2010

Reference document:

GENERAL RULES OF THE NF MARK

Approved by the AFNOR Board of Directors, on **January 28th, 2012**

CERTIFICATION RULES



Who should you contact?

CERTITA
39-41 rue Louis White
92400 COURBEVOIE
www.certita.fr

Your contact:

e-mail: s.bocquillon@certita.fr
or: certita@certita.fr

UPDATE

Certification Regulations	Reason for update	Revision	Date
Part 1: Scope, NF marking	Precision on the scope	Rev 2	January 2012
Part 2: Quality requirements to be observed by the manufacturer	Editorial modifications and updates Updates for requirements the internal inspection of the production plant		
Part 3: Obtaining certification	Production range at a commercial ending taken into consideration		
Part 4: Certified product surveillance process - Modifications and development			
Part 5: Participating organisations			
Part 6: Applicable fees – Terms of payment	Updates and precisions for 2012		



39/41, rue Louis Blanc
92400 COURBEVOIE
Tél. : 01 47 17 64 85
www.certita.fr

Certification body
Notified by
AFNOR Certification
11, rue Francis de Préssencé
93571 LA PLAINE ST DENIS Cedex
Tél :01 41 62 80 00 – Fax :01 49 17 90 00

CERTIFICATION RULES

NF MARK – DOMESTIC SOLAR WATER HEATERS

PART 1

SCOPE – NF MARKING

CONTENTS

Foreword: Regulatory reference texts

1.1. Scope

1.2. NF Marking

Rev. 2– March 2012

Foreword: Regulatory reference texts

These certification rules are consonant with the regulatory framework for the certification of products and services other than agricultural, forestry, alimentary or seafood products, as set out in Articles L.115-27 to L.115-33 and R.115-1 to R.115-3 of the Consumer Code, with consideration given to the judgement of the National Consumption Committee of 17 December 2007.

1.1. SCOPE

The products concerned by the certification rules are domestic solar water heaters with forced circulation with or without supplementary heating built into the storage tank **which can be tested according to the NF EN 12 976**

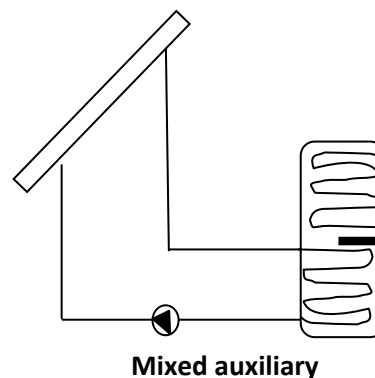
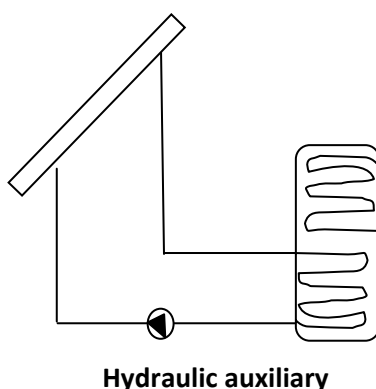
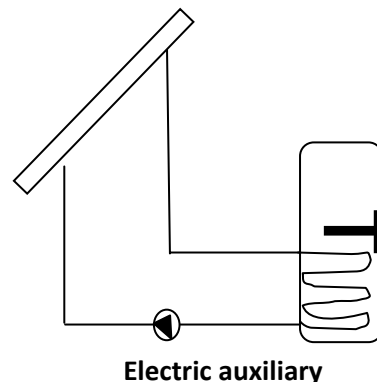
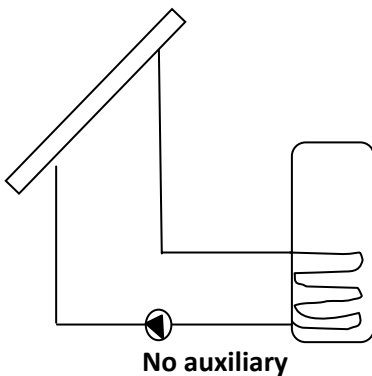
Water heaters implementing provisions for mitigating the risk of the development of legionella bacteria, in application of the Order of 30/11/05 cited in § 2.1.1., do not fall within the scope of these certification rules. The case of systems implementing, in accordance with the abovementioned Order, provisions having no significant impact on energy performance are reviewed on a case by case basis in consultation with the Mark Committee.

Implementation is not concerned by these rules.

Henceforth, the term "Mark" shall be used to designate the application of the NF Mark.

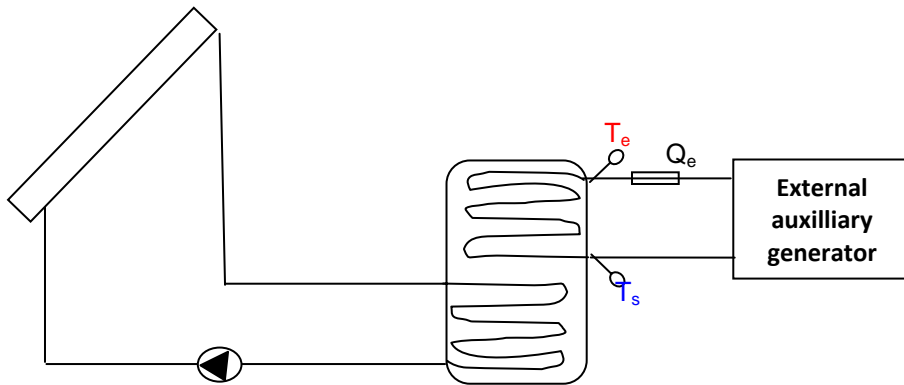
1.1.1. Precision and schematics of systems which can be tested according to the NF EN 12976

- **Split systems**
 - **Classical Domestic Solar Water Heaters**



Note: thermal performances determination for mixed auxiliary heat systems is performed by two sets of tests, each covering the operation of the system with only one of two types of auxiliary.

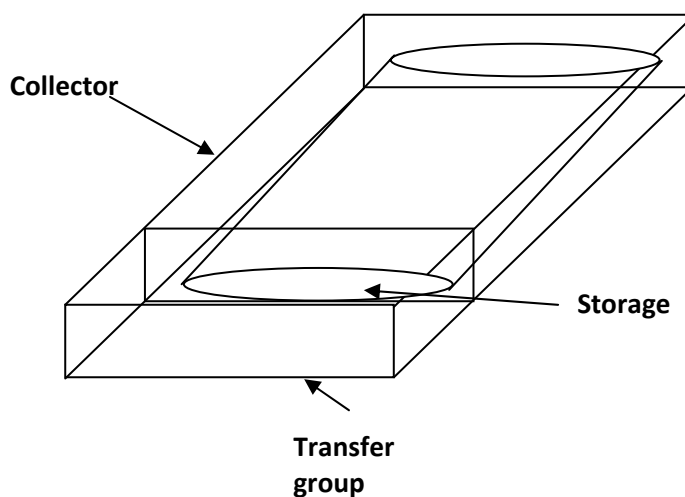
- Domestic Solar Water Heaters with hydraulic auxiliary powered by a device inseparable from the tank.



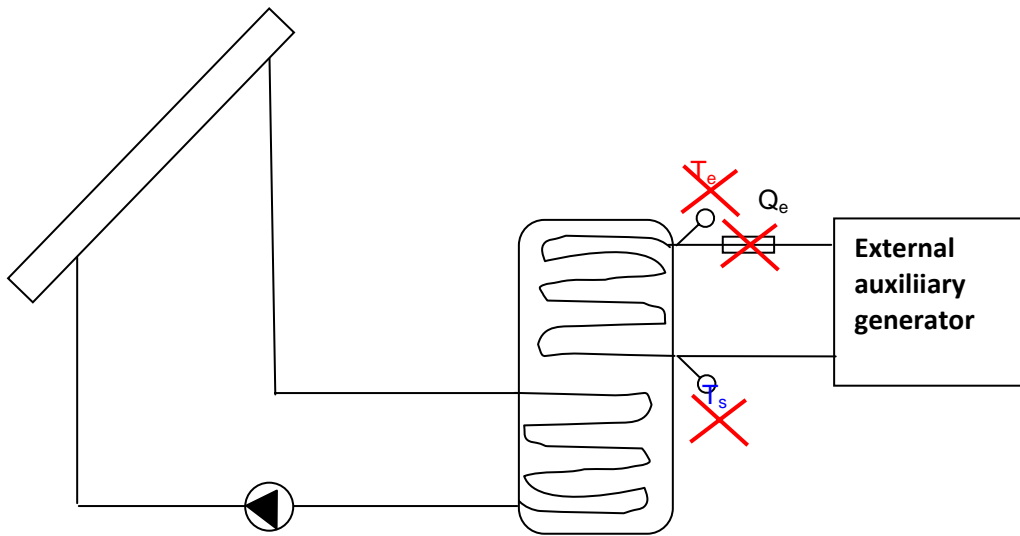
Note: The power measurement at the terminals of the auxiliary exchanger should be possible (input-output temperature + flowmeter sensors)

For example

- Floor standing boiler
 - Domestic Solar Water Heater with a heat pump auxiliary whose condenser is an exchanger external to the tank.
- Packaged systems



1.1.2. Precisions and schematics of systems which cannot be tested regarding the NF EN 12 976



Systems where the power measurement at the terminals of the auxiliary exchangers is impossible are not covered by this certification rule.

Examples of systems excluded from this certification rule

- Boiler which compactness makes impossible the installation of input-output and the flowmeter temperature sensors.
- Domestic Solar Water Heaters with a heat pump auxiliary whose condenser is immersed in the tank (biphasic in the exchanger)

1.2. NF MARKING

The NF mark is substantiated by the NF logo, in compliance with the models below:





Until end of 2013, the NF mark holders can use one of the two logos. From 1st of January, 2014, only the first logo will have to be used.

(CESI: "Chauffe-Eau Solaire Individuel", Domestic Solar Water Heater)

The style guide for the NF Mark is available upon request from CERTITA and on www.marque-nf.com in Mark holders area.

The provisions concerning the use of the NF Mark are described in Part 2 of these certification rules.



39/41, rue Louis Blanc
92400 COURBEVOIE
Tél. : 01 47 17 64 85
www.certita.fr

Certification body
Notified by
AFNOR Certification
11, rue Francis de Préssencé
93571 LA PLAINE ST DENIS Cedex
Tél : 01 41 62 80 00 – Fax : 01 49 17 90 00

CERTIFICATION RULES

NF MARK – DOMESTIC SOLAR WATER HEATERS

PART 2

QUALITY REQUIREMENTS TO BE OBSERVED BY THE MANUFACTURER

CONTENTS

2.1. Requirements concerning products

2.2. Requirements concerning the quality management system

2.3. Requirements concerning product marking

Rev 2 – march 2012

2.1. – REQUIREMENTS CONCERNING PRODUCTS

2.1.1. REFERENCE DOCUMENTS

- NF EN 12976-1 (April 2006)– Thermal solar systems and components - Factory made systems. Part 1: General requirements
- NF EN 12976-2 (April 2006)– Thermal solar systems and components - Factory made systems. Part 2: Test methods
- ISO 9459-5 (2007) Solar heating – Domestic water heating systems – Part 5: characterisation of system performance by means of tests conducted on the entire system and by computer simulation.
- NF EN ISO 9488 (January 2000)- Solar energy - Vocabulary
- NF EN 15316-4-3 (2007) - Heating systems in buildings - Method for calculation of system energy requirements and system efficiencies - Part 4-3: Heat generation systems - thermal solar systems
- NF EN 60335-1 (2003) – Safety of household and similar electrical appliances – Part 1: general requirements.
- NF EN 60335-2-21 (2005) – Safety of household and similar electrical appliances – Part 2-21: particular requirements for storage water heaters.
- **NF EN 60335-2-102 (2007): Household and similar electrical appliances. Safety. Part 2 -102 Particular requirements for gas, oil and solid-fuel burning appliances having electrical connections**
- **NF EN 60730-1 (2001): Automatic electrical controls for household and similar use. Part 1: General requirements**
- **NF EN 60730-2-9/A2 (2005): Automatic electrical controls for household and similar use Part 2-9: Particular requirements for temperature sensing controls**
- NF EN 50106 (2009) - Safety of household and similar electrical appliances – Particular rules for routine tests referring to appliances under the scope of EN 60335-1
- NF EN ISO 9001 (2008)- Quality management systems - Requirements
- (2004/18/EC) Directives "Electromagnetic compatibility" and 2006/95/EC "Low voltage equipment"
- Standard departmental sanitary regulations
Circular of 2 July 1985 relative to the thermal treatment of water intended for human consumption (Official Journal of the French Republic (JORF) of 15/08/1985)
Circular of 2 March 1987 relative to the updating of lists of fluids and additives used in the thermal treatment of water intended for human consumption (JORF of 7/04/1987)
Order of 30 November 2005 modifying the order of 23 June 1978 relative to fixed installations designed to heat and supply domestic hot water in housing, occupational premises or public facilities (JORF of 15/12/05).

2.1.2. SPECIFICS ON APPLICABLE SPECIFICATIONS:

The thermal performance characteristics stipulated in § 4.8 of NF EN 12976-1 and determined in accordance with § 2.13 below shall comply with the values declared by the applicant or licensee.

The minimum performance thresholds of the domestic solar water heaters (CESI) shall be established at a later time:

The domestic solar water heaters covered by these rules shall be supplied with all documents listed in section 4.6 of EN 12976-1.

These documents shall include the following:

- the assembly instructions intended for the installer (§ 4.6.2 of EN 12976-1)
- the operating instructions intended for the user (§ 4.6.3 of EN 12976-1)

Case of domestic solar water heaters with tank equipped with electric heating elements: the tank shall undergo testing in compliance with electrical safety specifications as set out in NF EN 60335-1 and NF EN 60335-2-21. The electric heating elements are factory installed or installed by the manufacturer, who in this case shall conduct the aforementioned compliance tests.

Solar collectors:

Case of close-coupled domestic solar water heaters:

- Collectors must be in accordance with § 5.3.8 of EN 12975-1 relative to the test of mechanical load, this conformity in being proved by a test report according to § 5.9 of EN 12975-2 made by an agreed laboratory (q.v. Part 5)

Case of remote-storage domestic solar water heater:

- Collectors must have a CSTBat or Solar Keymark certification.

2.1.3. TESTING AND SIMULATION METHODS

The thermal performance characteristics of a range of domestic solar water heaters (DSWH) are determined in the following manner:

- By testing one (or several) reference models and extrapolating the results to the other models in the range.
- Whereas the case and as an option, by simulation before the end of the test program.
- **By simulation for ranges at a commercial ending (as defined in § 3.2.6).**

2.1.3.1 Determination of thermal performance characteristics through simulation:

Pure simulation is conducted for all models of the range concerned in compliance with standard NF EN 15316-4-3:2007 (§ 6.3 Method B), using the "SOLEN" software, for example.

a) Individual solar water heater simulation parameters:

The steps and the input parameters for calculating the performance **regarding the standard NF EN 15316-4-3: 2007 (§6.3 Method B)** characteristics using the "SOLEN" software are as follows:

Simulation steps		Component	Value
Step 1	Selection of the simulation module for assembly of domestic solar water heater components		
Step 2	Selecting the solar system	System without auxiliary system	
		System with built-in auxiliary system	
Step 3		Weather station	Nice
Step 4	Domestic hot water requirements		
		Daily domestic hot water requirements (litres)	Nominal volume of the tank 6 hours after the sun has past its zenith
		Domestic hot water setpoint temperature	45 °C
Step 5	Solar collector	Type of solar collector	Solar collector as per Avis Technique
		Thermal performance characteristics of the solar collector (n_0, a_1, a_2)	As per Avis Technique or Solar Keymark with $a_1 < 5 \text{ W/m}^2 \cdot \text{K}$ and $a_2 < 0.04 \text{ W/m}^2 \cdot \text{K}^2$
		Aperture area of collector(s) (A)	As per domestic solar water heater (CESI) Avis Technique or Solar Keymark
		Inclination	45 °
		Orientation	South
	Solar loop	Heat loss coefficient	Default value, as per formulas given in EN 15316-4-3: $U_{loop} = a_1 + (a_2 * 40) + U_{loop,p}/A$ with $U_{loop,p} = 5 + 0.5A$ (A= aperture area of collector(s))
		Loop efficiency factor n_{loop} or loop efficiency	Set data: 0.8
	Solar storage tank:		Rated tank volume
		Tank heat loss coefficient (W/K)	Default value: as per formula in EN 15316-4-3: $U_{st} = 0.16 * V_{sol}^{0.5}$ Or manufacturer data: based on a test report according to EN 12977-3 or EN 12897 provided during the investigation
		Tank position	Unheated room
	Auxiliary heating	Auxiliary heating management	As per domestic solar water heater (CESI) Avis Technique
			Or to be calculated
			Define permanent or night time supplement
	Auxiliary	Circulating pump	value declared by the manufacturer

b) Results obtained for the simulated domestic solar water heater:

Based on the terminology of standards of the NF EN 15316-4-3 series, the results obtained following the simulation are:

- $QW_{sol,us}$: power requirements for heating domestic water (kWh/year)
- $QW_{sol,out}$: energy supplied by the solar system (kWh/year)
- $QW_{auxiliary}$: energy supplied by the auxiliary system (kWh/year) (thermal energy)

Energy efficiency = $QW_{sol,us} / (QW_{auxiliary} + Q_{aux})$

Q_{aux} = electric power consumed by the pump, based on:

- nominal power consumption P at maximum speed, declared by the manufacturer as per NF EN 1151-1 or equivalent
- and an annual operating time of 2,000 hours, in compliance with § 4.6.3.h3 of NF EN 12976-1.

For a system with auxiliary heating the energy efficiency is the pertinent calculated value, for a domestic solar water heater it is $QW_{sol,out}$

2.1.3.2 Determination of the thermal performance and characteristics of domestic solar water heaters by testing:

This method consists of performing tests in compliance with standards ISO 9459-5 and NF EN 12976-2, on one or more reference domestic solar water heaters depending on the extent of the product range. The results obtained are then used to extrapolate, through simulation, to the other domestic solar water heaters of the range. In the case of systems with auxiliary heating, for a given range, the performance characteristics are determined by the type of auxiliary heating selected by the applicant and stipulated in its application.

a) Definition of the reference system(s) of the domestic solar water heater range:

Definition of a reference tank

The reference tank is that of median volume in relation to the range. This tank can cover tanks having a volume of +/- 50 % in relation to the volume of the reference tank.

If a single tank does not cover the entire range, as many tanks as needed shall be used.

However, in the case of tanks used for preheating applications, an examination on a case-by-case basis may allow you to reduce the number of tanks to be tested, as determined by the above rule.

Definition of the number of reference collectors

The aperture area S of reference collectors for the reference tank is the value for which ($V_{reference\ tank} / S_{reference\ collectors}$) is the closest to (V/S) median; it allows coverage of the collectors corresponding to $(V/S)_{median} \pm 50\%$.

For each reference tank, the collectors of the systems tested are selected from those that may be associated with it.

Definition of auxiliary system types

The reference system is defined so as to cover the type of auxiliary heating system in the manufacturer's application.

b) Determination of thermal performance characteristics:

For the reference system

The tests and the calculation of performance characteristics from the test results are conducted on the reference systems in compliance with standards ISO 9459-5 and NF EN 12976-2.

This calculation is performed based on the following assumptions:

- reference stations: Nice and 4 reference stations mentioned by standards ISO 9459-5 and NF EN 12976-2
- Draw-off profile: the volume of the tank is completely drawn 6 hours after the sun has past its zenith

The results provided by the calculation are determined using the terminology of standard NF EN 15316-4-3:

- $QW_{,sol,us}$: power requirements for heating domestic water (kWh/year)
- $QW_{,sol,out}$: energy supplied by the solar system (kWh/year)
- $QW_{,auxiliary}$: energy supplied by the auxiliary system (kWh/year) (thermal energy)

$$\text{Energy efficiency} = QW_{,sol,us} / (QW_{,auxiliary} + Q_{aux})$$

For a system with auxiliary heating the energy efficiency is the pertinent calculated value, for a domestic solar water heater it is $QW_{,sol,out}$

Extrapolation to the range:

The thermal performance characteristics for a range of domestic solar water heaters are determined by an extrapolation method based on the method B of standard EN 15316-4-3 (for example, using the SOLEN software developed by the CSTB and available as freeware on their web site). The principle used involves determining the loop efficiency to be used in the software to determine the performance characteristics of the entire range.

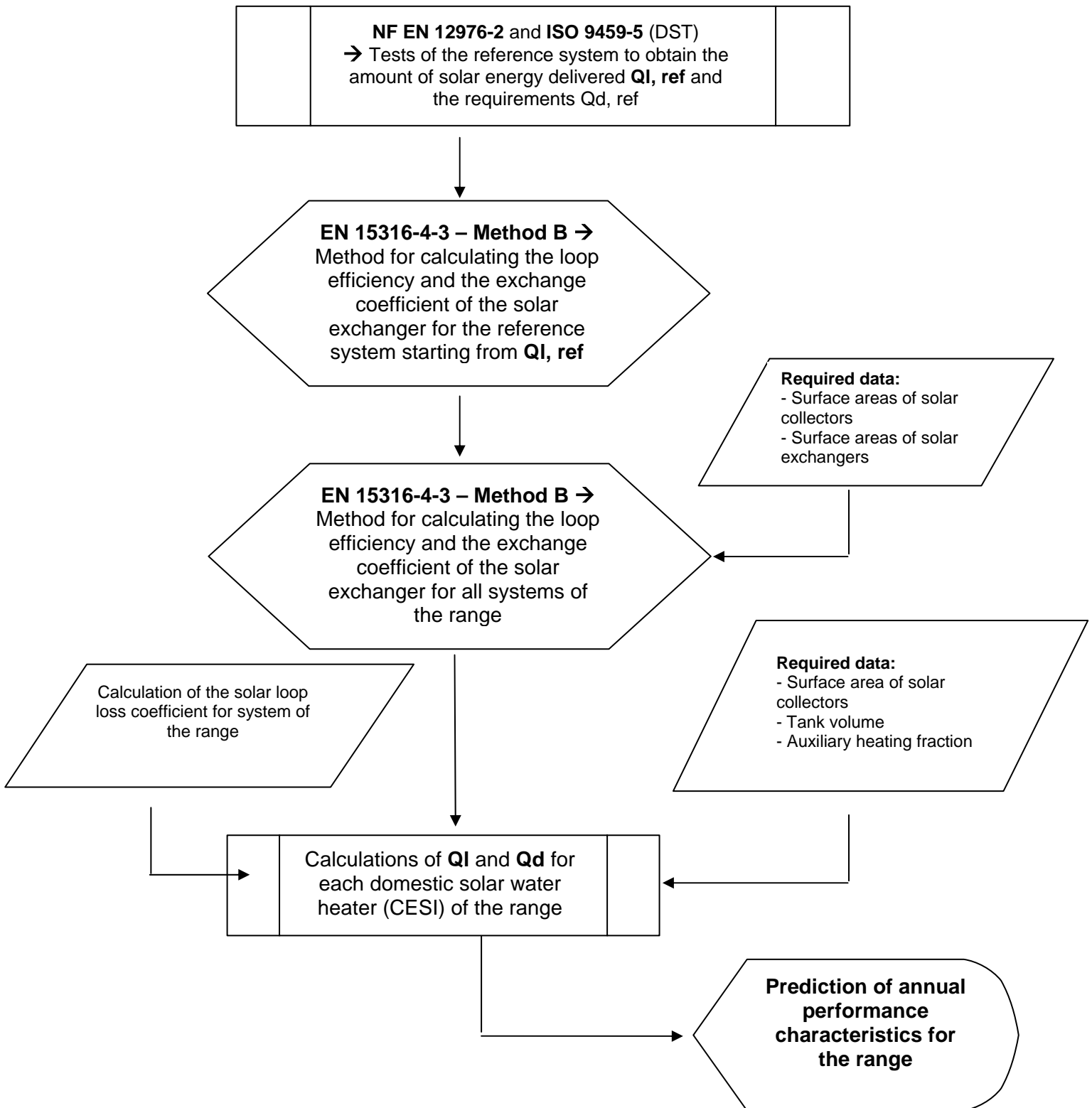
- Step 1: Determination of the efficiency of the reference system's solar loop based on tests results by minimizing the deviation between $Q_{w,sol,out,EN15316}$ and $Q_{w,sol,out,essai\ ref}$

When there are several reference models, loop efficiency is calculated as the average of the loop efficiencies of the various reference models.

The precision sought for the loop efficiency is 2 decimal places.

- Step 2: Extrapolation of the performances to the remaining part of the range
The solar loops' efficiencies are calculated for each system of the range which enables the calculation of the system performance using extrapolation following method B of standard NF EN 15316-4-3 in accordance with the assumptions of 2.1.3.1a.

The diagram below illustrates the method used for this extrapolation phase:



c) Identification of a range's parameters:

The results of the performance tests on the reference system are exploited in accordance with § 7 of standard ISO 9459-5 (DST (Dynamic Testing System) method) to identify the following parameters:

Symbol	Unit	Designation
A_C^*	[m ²]	Effective collector loop area
u_C^*	[Wm ⁻² K ⁻¹]	Heat loss coefficient of the collector
U_S	[WK ⁻¹]	Heat loss coefficient of the storage tank
C_S	[MJK ⁻¹]	Heat capacity of the storage tank
f_{aux}	N/A	Fraction of the volume of the storage tank used for auxiliary heating

Extrapolation of the parameters identified to the entire range is performed according to the process represented in the diagram below.

The data and identified parameters are processed with software ("In situ" or equivalent); the same software shall be used for all steps of the process.

The process takes place in two phases:

1. A phase designed to check the consistency of test data obtained on the reference system with the extrapolation method:

The results obtained, derived from the prediction of annual performance characteristics and using the parameters identified above, are compared with those obtained by setting the values of A_C^* and u_C^* equal to the values calculated using the following equations:

$$A_C^* = F''' \cdot \eta_{0a} \cdot K_{50^\circ} \cdot A_a \text{ with: } A_a: \text{aperture area of the collector (m}^2\text{)}$$

η_{0a} : zero-loss collector efficiency

K_{50° : incidence angle modifier at 50° incident angle

F''' : thermal exchange coefficient

$$F''' \text{ is defined by: } F''' = 1 - \Delta\eta_h \text{ with } \Delta\eta_h = \eta_{0a} \cdot K_{50^\circ} (A_a \cdot a_c + U_{loop}) / UA$$

where: $a_c = a_{1a} + a_{2a} \cdot 40 \text{ W/(K.m}^2\text{)}$ – heat loss coefficient of the collector at Tm-

Ta=40K (Ta = T°C air, Tm = average T°C of the collector)

a_{1a} : first-order loss coefficient (W/(Km²))

a_{2a} : second-order loss coefficient (W/(K²m²))

UA = U*A = thermal exchange coefficient of the solar exchanger (W/K)

U_{loop} = heat loss coefficient of the collector loop (W/K)

$$U_C^* = (a_c + U_{loop} / A_a) / (\eta_{0a} \cdot K_{50^\circ})$$

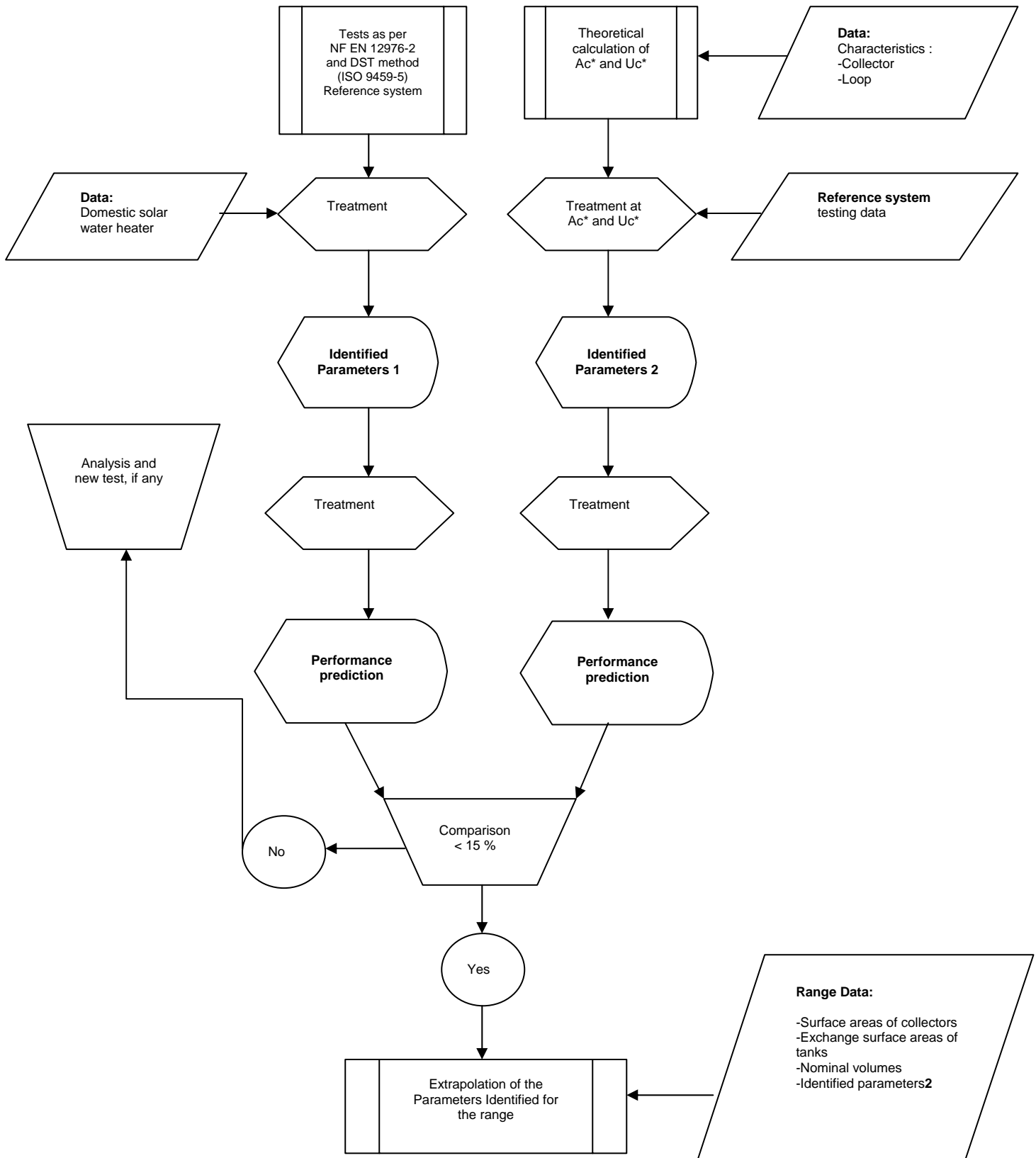
If the difference between the results of the performance prediction is less than 15 %, the extrapolation method is applicable and the process is continued according to 2. Otherwise, it does not apply and the test data must be checked and another test on the reference system is performed as required.

2. Strictly speaking, an extrapolation phase where the identified parameters A_c^* and U_c^* are determined for each system of the range considered using the equations above and the other parameters identified are calculated according to the following equations from the values of the identified parameters of the reference system:

$U_s = U_{sref} \cdot A_{storage} / A_{storage\ ref}$ where $A_{storage}$ designates the surface area of the storage tank and the index ref refers to the reference system

$C_s = C_{sref} \cdot V / V_{ref}$ where V is the volume of the storage tank

$f_{aux} = f_{aux\ ref}$



2.2. REQUIREMENTS CONCERNING THE QUALITY MANAGEMENT SYSTEM

2.2.1 ON THE APPLICANT OR LICENSEE PREMISES

These provisions apply to the applicant (or licensee) of the mark and, as the case may be, to the production units of the main components of the product: collectors, storage tanks and controllers. The applicant (or licensee) shall take the appropriate measures to ensure that the requirements are being met by the units producing the abovementioned components.

These measures encompass certain requirements of ISO 9001:2008 designed to ensure product compliance. They do not involve the certification of the quality management system.

As such, it is recommended that applicants or licensees of the NF Mark support the quality system established for the products to be certified, based on the model defined by standard NF EN ISO 9001-2008, and establish quality plans and the quality manual in accordance with the requirements specified by this standard.

The organisation set up to manage quality assurance shall be formalised by documents made available to the mandated body. The latter shall determine whether or not the system is designed to achieve the established objectives, and check, at the production site, to determine whether or not these objectives have been actually attained.

For companies whose Quality Management System is certified by a body accredited by the EA (European Cooperation for Accreditation), the requirements of ISO 9001:2008 are considered as satisfied since the company's Quality Management System applies to the products considered.

The quality assurance are:

- descriptive in nature:

- . general organisation rules,
- . procedures for obtaining and verifying quality,

- and technical in nature:

- . definition of inspection procedures for products and equipment
- . definition of methods for verifying and measuring characteristics

a) Quality policy

In terms of quality, the manufacturer's management shall define and document its policy, objectives and commitment.

It shall ensure that this policy is understood, implemented and maintained at all levels of the organisation. It shall define the means required to meet these objectives (installation of the necessary equipment, designation of persons trained for audits).

b) Responsibilities and authority

The responsibilities, authority and relationships of all individuals who manage, perform and verify tasks having an impact on quality, shall be defined and written.

In particular, a management representative, acting on its behalf, independent of other corporate functions as soon as the size of it allows it, shall be designated.

This individual shall have the necessary authority to:

- . ensure that the requirements of the quality are established, implemented and maintained in accordance with the requirements of these rules.
- . report on operation of the quality system to management for review and as a basis for improving the quality system.

c) Quality organisation

The manufacturer shall define and document, in a format adapted to the company's operating procedure, how to meet the quality requirements.

It shall:

- compile a quality manual and/or a quality plan describing the company's general organisation in terms of quality, for the purposes of these rules,
- establish written procedures consistent with the requirements of these rules and with the quality policy formulated by its management,
- effectively implement the written procedures and the quality system.

d) Requirements relative to the documentation

The manufacturer shall establish and maintain written procedures for managing all documents and all the data relative to the requirements of these rules (including documents of external origin such as standards or these rules).

These procedures shall ensure that:

- the pertinent issues of the appropriate documents are available in all operational areas;
- invalid and/or obsolete documents are promptly removed from all points of distribution or use.

Approval and distribution of documents

Prior to their distribution, the documents shall be reviewed and approved by authorised persons. A reference list or any equivalent document control procedure indicating the current issue of the documents shall be established and be readily available to prevent the use of invalid and obsolete documents.

Document changes

Unless otherwise specified, document modifications shall be reviewed and approved by the same departments/organisations that originally reviewed and approved them.

Where practicable, the nature of the change shall be identified in the document or the appropriate sections.

e) Purchasing - § 7.4 of standard ISO 9001: 2008

The manufacturer shall establish and maintain up to date written procedures to ensure that the product supplied is in compliance with the specified requirements.

The manufacturer shall:

- define the specifications of products to be supplied (and possibly establish specifications with its suppliers)

- define its supplier selection criteria
- compile and maintain a regularly updated list of its authorised suppliers
- establish and maintain records relating to the quality of its acceptable suppliers.

Orders shall clearly describe the product ordered (technical specifications, quantities, lead times, ...) provide references to technical characteristics in the specifications and stipulate the request for a certificate of compliance, as required.

f) Identification and traceability - § 7.5.3 of standard ISO 9001: 2008

The manufacturer shall prepare instructions for identifying the product with marking that complies with the requirements of § 2.3. below.

Traceability is a requirement of the NF Mark; accordingly, the provisions set out in ISO 9001:2008 concerning unique product identification shall be taken into account. This identification must ensure traceability in order to be able to find information on the product's history.

g) Verification of purchased product - § 7.4.3 of standard ISO 9001: 2008

The manufacturer shall ensure the quality of raw materials and components used in the manufacture of products for which it holds the right to use the NF Mark.

For example, controls defined and regular upon receipt or certificate of compliance to supplier technical characteristics or specifications.

Checks performed shall be recorded and include an indication of the acceptance criteria and decisions taken in cases of non-compliance.

h) Validation of processes for production and service provision - § 7.5.2 of standard ISO 9001: 2008

Before the commissioning of manufacturing facilities, the applicant or subcontractor shall conduct inspect all equipment. A periodic maintenance programme of this equipment shall be established. Operating instructions shall be drafted which taken into account the duties of the workstation and the definition of performance criteria (reference to standards, specifications).

In the event of subcontracting, precise specifications must be compiled for the subcontractor.

i) Monitoring and measurement of product - § 8.2.4 of standard ISO 9001: 2008

The manufacturer shall monitor and measure the product characteristics to verify that product requirements are met.

The following checks are conducted:

- by the manufacturer directly on the production line or in a laboratory installed at the production site,
- by the manufacturer in an external laboratory, in accordance with provisions recognised by CERTITA,
- by an identified subcontractor.

The product sampling method for these checks shall be precisely described in the quality plan. It should not be left to the sole discretion of the operator.

For each new device presented for NF Mark certification, all tests required by the Certification Rules of the NF application are to be performed by the manufacturer in order to validate the design.

Within the scope of the NF Mark, the inspection plan implemented must at least consist of the tests and checks outlined below:

- In the final inspection: the inspection plan implemented must ensure that the products are in compliance with the specifications of the reference standards. It shall contain at least the tests set out below:
 - ❖ Regular checks performed on packaged products at the end of the production line with a frequency to be determined by the manufacturer, in order to ensure that all components, assembly instructions, NF information sheet, and various markings (CE, NF, etc.) are present.
 - ❖ The tests listed in the tables below.
 - ❖ The attention of applicants or manufacturers is drawn to the need for functional testing of control elements when changes (i.e. programming) are made to the intrinsic features of the equipment supplied.

Collectors					
Components	Inspections	Characteristics	Frequency	Comments	Position
Absorber	General appearance	In accordance with specifications	On each batch delivery or during production by sampling	When the absorber is delivered in reels, inspection takes place during production. Inspection performed by the supplier or subcontractor if the manufacturer does not have the necessary measuring equipment	Incoming goods / Production
	Dimensional				
	Optical characteristics <i>(the optical characteristics shall comply with those in the specifications to within $\pm 2\%$)</i>	☑ absorption coefficient			
		☑ emissivity coefficient			
Transparent cover	General appearance	In accordance with specifications	On each unit	/	Production
	Dimensional				
	Optical characteristics <i>(the optical characteristics shall comply with those in the specifications to within $\pm 2\%$)</i>	☑ Transmission coefficient	On each batch delivery by sampling	Inspection performed by the supplier or subcontractor if the manufacturer does not have the necessary measuring equipment	Incoming goods
Hydraulic connection	Dimensional	In accordance with specifications	On each batch delivery by sampling On master during production	/	Incoming goods / Production
	Tightness	- Using water :1.5 times the stated service pressure - Using air : 1,3 times the stated service pressure	On each unit		Production

Collectors (continued)					
Components	Inspections	Characteristics	Frequency	Comments	Position
Manufactured insulation	General appearance	In accordance with specifications	On each unit	/	Production
	Dimensional				
	Cohesion <i>(except P.U. foam)</i>				
	Density	Nominal value ± 5kg/m ³	On each batch delivery by sampling		Incoming goods
Insulation produced by injection	Injection time	In accordance with specifications	By periodic sampling, after prolonged stoppage and change of injection products	The storage conditions of Isocyanate and Polyol components shall comply with the supplier's instructions.	Production
	Temperature/Hygrometry				
	General appearance				
	Dimensional				
	Density				
Vacuum tubes	General appearance	In accordance with specifications	On each unit	/	Incoming goods
	Dimensional		On each batch delivery by sampling		
	Optical characteristics of glass <i>(the optical characteristics shall comply with those in the specifications to within ± 2%)</i>	☑ Transmission coefficient	On each batch delivery by sampling	Inspections performed by the supplier or subcontractor	Incoming goods
	Optical characteristics of the absorber <i>(the optical characteristics shall comply with those in the specifications to within ± 2%)</i>	☑ absorption coefficient			
		☑ emissivity coefficient		Inspections performed by the manufacturer, supplier or subcontractor	Incoming goods / Production
	Vacuum value	In accordance with specifications	On each batch delivery, on each unit		
Heat pipe	Dimensional	In accordance with specifications	On each batch delivery by sampling	Inspections performed by the manufacturer, supplier or subcontractor	Incoming goods / Production
	Temperature release		On each unit		
	Minimum deviation release		On each batch delivery by sampling		

Storage tank						
Components		Inspections	Characteristics	Frequency	Comments	Position
Storage tank	All types	General appearance Dimensional	In accordance with specifications	On each unit for the manufacturer On each batch delivery in case of subcontracting	The subcontractor shall provide a record of the checks performed on the tanks. For control using air, specific security provisions are expected.	Incoming goods / Production
		Tightness (controls using water or using air)	Using water : 1.3 times the stated service pressure	On each unit Weekly		
			- Using air : according to manufacturer procedure	On each unit + By sampling using water or using air 1.3 times the stated service pressure		
	Stainless steel type	Anticorrosion treatment of welds	In accordance with specifications	On each unit		
	Internal protective coating by enamelling type	Monitoring of oven temperature		Continuous		
		Monitoring of oven temperature Homogeneity		Continuous		
		Monitoring of oven time		Continuous		
		Coating thickness		By sampling		
		General appearance		On each unit		
	Other type of protective coating	Coating thickness		In accordance with specifications		
General appearance		On each unit				

Hydraulic heat exchangers (Solar and / or auxiliary)	All types	General appearance	In accordance with the specification	On each batch delivery	<p>The subcontractor shall provide a record of the checks performed on the exchangers.</p> <p>For a control using air, specific security provisions are expected.</p>	Incoming goods / production
		Dimensional		On each unit		
		Leaktightness	Control value using water = 1.3 times the stated service pressure	On each unit		
			Control value using air = in accordance with the manufacturer testing procedures	On each unit + by sampling using water or using air 1.3 times the stated service pressure		

Storage tank (continued)					
Components	Inspections	Characteristics	Frequency	Comments	Position
Manufactured insulation	General appearance	In accordance with specifications	On each unit		Production
	Dimensional				
	Cohesion <i>(except P.U. foam)</i>		On each batch delivery by sampling		Incoming goods
	Density				
Insulation produced by injection	Injection time	In accordance with specifications	By periodic sampling, after prolonged stoppage and change of injection products	The storage conditions of Isocyanate and Polyol components shall comply with the supplier's instructions.	Production
	Temperature/Hygrometry				
	General appearance				
	Dimensional				
	Density				
Regulation					
Regulation	Running tests (starting point...) and electric strength	In accordance with the specifications	Each unit	Tests can be performed using signal generator	Production/finished products
Electric Safety					
Heat resistance (for DSWH with mounted heat resistance)	Test according to NF EN 50106	Earth continuity test Electrical strength test Running test	Each unit (except manufacturer specification according to § 4.1.3)		Production/finished products
Electrical components	Visual inspection of the components and assembly	According to bill of material and assembly schemes in the technical file			

j) Control of monitoring and measuring equipment - § 7.6 of standard ISO 9001: 2008

The measurement, inspection and testing equipment likely to have an influence on the tests conducted within the scope of NF Mark certification shall be:

- calibrated or checked at specified intervals or prior to use, based on measurement standards associated with international or national calibration standards (when such standards do not exist, the reference used for calibration shall be recorded)
- calibrated as often as required
- identified in order to determine the validity of the calibration
- protected against adjustments likely to invalidate the measurement result
- protected against damage and deterioration during handling, maintenance and storage

In addition, the manufacturer shall assess and record the validity of previous measurement results when it is determined that equipment not in compliance. The manufacturer must undertake appropriate action on equipment and any product affected. The records of calibration and verification results must be kept.

Control, measurement and testing equipment shall be used so as to ensure that the measurement uncertainty is known and consistent with required skills in measurement.

k) Preservation of product - § 7.5.5 of standard ISO 9001: 2008

The manufacturer shall preserve product conformity during internal operations and during delivery to the intended destination. This preservation shall include identification, handling, packaging, storage and protection. Preservation shall also apply to product components.

Storage

The manufacturer must use designated areas or storage spaces to prevent damage or deterioration of the product pending its use or delivery.

To detect deterioration, the condition of the product in stock shall be valued at appropriate and defined intervals.

l) Control of nonconforming product - § 8.3 of standard ISO 9001: 2008

The manufacturer shall ensure that any product not in compliance with requirements is identified and controlled to prevent its unintended use or delivery.

The controls and the associated responsibilities and authorities for the treatment of non-compliant products shall be defined in written procedures.

The manufacturer shall deal with a non-compliant product bearing the NF label in one of the following ways:

- conducting actions to eliminate non-compliance
- by authorizing its use, release or acceptance by waiver in this case, the prior agreement of the mandated body must be obtained

- by carrying out actions to prevent its use (scrapping, for example).

The records of the type of non-conformities and any subsequent actions taken, including the waivers obtained, shall be retained.

When a non-conforming product is corrected, it must be retested to demonstrate compliance with requirements.

When a non-conforming product is detected after delivery or after it has been put into service, the manufacturer shall take actions that are adapted to the actual or potential effects of the non-compliance.

m) Corrective action and Preventive action - § 8.5.2 and 8.5.3 of standard ISO 9001: 2008

The manufacturer shall undertake actions to eliminate causes of non-conformities to prevent them from reoccurring. The corrective actions shall be adapted to counter the effects of the non-conformities encountered.

A written procedure must be established to define requirements to:

- review non-conformities (including customer complaints)
- determine the causes of non-conformities
- assess the need to undertake actions to ensure that non-conformities do not recur
- determine and implement the necessary actions
- record the results of the actions implemented
- review the corrective actions implemented

Records showing the claims on certified products and their treatment must be established and kept.

2.2.2 AT THE MANDATED BODY (DISTRIBUTOR) OR ITS REPRESENTATIVE

a) Identification and traceability - § 7.5.3 of standard ISO 9001: 2008

The distributor shall establish and implement the provisions ensuring the identification and traceability of the domestic solar water heaters (CESI) and their components. These provisions shall ensure that the domestic solar water heaters distributed bearing the NF Mark are comprised of components that correspond to models that are actually NF Mark certified.

b) Corrective action - § 8.5.2 of standard ISO 9001: 2008

The distributor shall establish and maintain written procedures to implement corrective actions.

The distributor shall implement and record all changes in written procedures resulting from corrective actions.

Corrective action procedures shall include:

- searching for causes of non-compliance relating to the product, and the recording the results of this research,

- determining corrective actions to eliminate the causes of non-conformities,
- the recording and the actual processing of customer complaints and product non-compliance reports,
- provisions to ensure that corrective action is actually implemented.

Records of complaints relating to certified products and their processing must be established and kept.

c) Purchasing - § 7.4 of standard ISO 9001: 2008

The distributor shall establish and maintain up to date written procedures to ensure that the components supplied are in compliance with the specified requirements.

The distributor shall:

- define the specifications of parts to be supplied (and possibly establish specifications with its suppliers),
- define its supplier selection criteria,
- compile and maintain a regularly updated list of its authorised suppliers,
- establish and maintain records relating to the quality of its acceptable suppliers.

Orders shall clearly describe the part ordered (technical specifications, quantities, lead times, ...) provide references to technical characteristics in the specifications and stipulate the request for a certificate of compliance, as required.

The specification must include the following requirements:

The component manufacturer shall establish and maintain written procedures defining the rules adopted to uniquely identify the component during all phases of production (from reception to final product) drawings, markings, labelling and record sheets.

This identification should enable traceability and provide a history of the product.

2.3. REQUIREMENTS CONCERNING PRODUCT MARKING

2.3.1. PRODUCT MARKING

The following indications must accompany the NF Mark (*according to the transitional rules described Part 1*):

- the commercial designation of the product and manufacturer's logo
- coding to ensure product traceability
- registered office address of AFNOR Certification: 11, avenue Francis de Pressensé, 93571 Saint-Denis La Plaine Cedex or www.marque-nf.com
- name of the manufacturer or mandated body or commercial brand name.

Reminder: If the decision has been made to suspend or withdrawal a non-compliant product, the manufacturer must cease all reference to the NF Mark on products, materials and web site.

The dimensions of the marking and the means used are left to the manufacturer's discretion insofar as the information presented remains legible **and the respect of the style guide of the NF Mark, available on www.marque-nf.com** , in the "mark holder" area.

2.3.2. INFORMATION SHEET

An information sheet shall be included with each product. This sheet shall include the following mandatory information:

- the NF logo with the application designation (*according to the transitional rules described Part 1*):
- certifying body's name and address
- identification of the referential used as the basis of certification (NF 414 certification rules)
- the licensee identification number

- the certified characteristics: Energy efficiency, production for the domestic solar water heaters without auxiliary heating, effective collector loop area (A_b^*), heat loss coefficient of the collector (U_c^*), heat loss coefficient of the storage tank (U_s), heat storage capacity (C_s); only the first two characteristics are available during the transitional period for determining the thermal performance characteristics by simulation.

- Informative characteristics: Ves 40, which represents the quantity of hot water at 40 °C that the electric auxiliary heater of a solar water heater storage tank can produce daily by itself (without sunshine), for a cold water temperature of 15 °C.

The presentation and format of this sheet is left to the discretion of the manufacturer. A model is provided below as a guide.

AFNOR Certification
11, RUE FRANCIS DE PRESSENSE
93571 LA PLAINE SAINT-DENIS CEDEX

INFORMATION SHEET

The NF Mark guarantees
the quality of this item
according to French standards
and certification rules of the NF CESI
application



**IN COMPLIANCE WITH THE SPECIFICATIONS
DEFINED BY THE CERTIFICATION RULES
OF THE NF CESI MARK**

CERTIFIED CHARACTERISTICS:

- . energy efficiency
- . production (for domestic solar water heaters without auxiliary heating)
- . effective collector loop area
- . heat loss coefficient of the collector
- . heat loss coefficient of the storage tank
- . heat capacity of the storage tank
- . fraction of the storage volume used for auxiliary heating

ADDITIONAL INFORMATION:

- . Ves40

OPERATING AND MAINTENANCE ADVICE

Refer to the manual provided with the apparatus.

If you are unsatisfied, first consult:
*(Name and address of manufacturer or entity
responsible for introduction onto the market)*

2.3.3. DOCUMENTATION

Where reference is made to certification in advertising, on labelling or the presentation of all product or service, and in commercial documents of any kind relating thereto, the following information mandatory information shall be provided to the consumer or user:

- The designation or company name of the certifying body or the collective certification mark;
- The name of the certification referential used;
- The manner in which the certification standard can be consulted or obtained.

The compulsory colours of the NF logo in the documentation are:

Letters "NF"	: white
Background of oval	: blue, Pantone 2955C

The use of other colours is subject to a waiver request made to CERTITA.

References to the NF Mark in sales documents (order confirmations, invoices, delivery slips, advertising leaflets, catalogues, etc.) shall be made in a way that avoids any risk of confusion between accepted products and others.

It is recommended that the licensee submit to CERTITA all sales document bearing the Mark, including modifications of said documents.

The licensee shall send, upon CERTITA's request, any document in which reference is made, directly or indirectly, to the NF Mark.



39/41, rue Louis Blanc
92400 COURBEVOIE
Tél. : 01 47 17 64 85
www.certita.fr

Certification body
Notified by
AFNOR Certification

11, rue Francis de Préssencé
93571 LA PLAINE ST DENIS Cedex
Tél :01 41 62 80 00 – Fax :01 49 17 90 00

CERTIFICATION RULES

NF MARK– DOMESTIC SOLAR WATER HEATERS

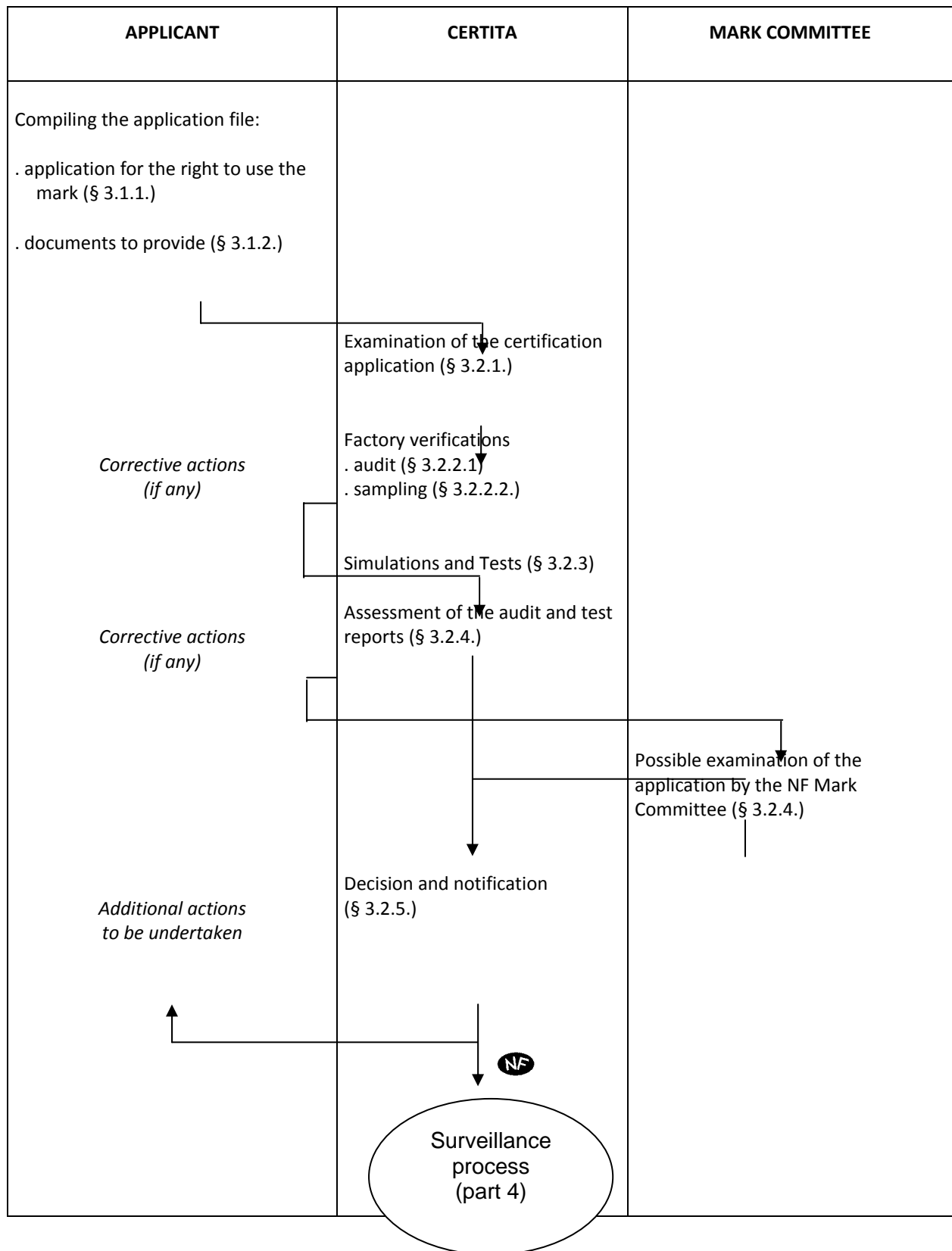
PART 3

OBTAINING CERTIFICATION

CONTENTS

- 3.1. Compiling the application file**
- 3.2. Initial evaluation process**

CERTIFICATION ACCEPTANCE PROCESS



3.1. COMPILING THE APPLICATION FILE

Any company manufacturing one or more products covered by this application of the NF Mark can request the right to use the Mark. A request of this kind is hereinafter referred to as "application", and the person formulating it is the "applicant".

3.1.1. APPLICATION FOR THE RIGHT TO USE THE NF MARK

Any applicant wishing to obtain the right to use the NF Mark on a product must first become familiar with the mark certification rules and declare acceptance.

The application is to be formulated on the applicant's letterhead, in compliance with the model (form No. 1a), and is to be remitted to CERTITA.

It stipulates the models and ranges presented for admission.

Vocabulary:

Decision	Description	Type of certificate issued
Admission	Further to an initial certification request for a product covered by the current certification or for a new manufacturing site	First certificate or initial certificate
Extension	Further to a new product certification request for an applicant who is already an NF Mark licensee	Modification of the existing certificate or new certificate if the range is different
Maintain	Further to a certification request for a mark and/or a commercial reference different from an NF-certified product	Modification of the existing certificate or new certificate if the distributor is different
Renewal	Publication by CERTITA of certificates arriving at their expiration date	Certificate renewal

General

Applicant:

The company, under the terms of the NF Mark, that is responsible for the products covered by certification. It may be the manufacturer or the distributor.

Manufacturer:

Company that assembles the components of a range of domestic solar water heaters (CESI). It can also manufacture all or part of these elements.

Distributor:

Company that places its brand name(s) and/or trade reference(s) on the licensee's equipment. The distributor may be the manufacturer, the mandated body or any other company (see maintain request § 4.2.3.)

Mandated body:

Representative of the applicant, operating within the European Economic Area, when the latter is not from a member country of the European Economic Area. It is duly accredited and responsible for all production likely to be granted the NF Mark and marketed in France. This authorised organisation must be listed with the Trade Register and satisfy French legal obligations, particularly with regards to insurance. Generally speaking, the mandated body is considered as the manufacturer.

Licensee:

When the right to use the NF Mark is granted, its beneficiary is referred to as the "licensee".

Production site:

Location where the domestic solar water heaters (CESI) are assembled, finished and packaged. When all manufacturing operations are not performed at the manufacturing site, the manufacturing site's subcontractor(s) involved in the production of products covered by this certification must be audited.

A domestic solar water heater (CESI) consists of the following elements:

- one or more solar panels
- a storage tank
- a control system
- a transfer unit
- a thermostatic mixing valve
- a heat transfer fluid
- connecting lines

The first 6 elements listed above must be supplied by the manufacturer; the heat transfer fluid is supplied by the manufacturer unless the user requests otherwise, in which case the manufacturer shall specify the authorised fluid; the connecting lines may be prescribed by the manufacturer.

A range of domestic solar water heaters (CESI) is comprised exclusively of the following:

- the same model of collector, built-in or separate, having a unique certificate (CSTBat, Solar Keymark); the examination of the relevant certificate request may be conducted in parallel with that of the NF CESI application

They may have the following differences:

- different aperture area,

In all cases, the performance characteristics to be considered are those given in the CSTBat or Solar Keymark certificates relative to this/these collector(s).

- have the same solar loop hydraulic principle, i.e. with the following elements identical:
 - types of heat transfer fluid: system water or other fluid characterised by its density, heat capacity and viscosity
 - exchanger technology
 - functional diagrams of the solar and auxiliary loops

- the same solar loop control principle (parameters considered), i.e. with the following elements identical:
 - type of control (simple differential or other)
 - control parameters (temperature thresholds, algorithm)
 - temperature sensor (Pt1000...)
 - control reference
 - position of sensors (their vertical position in the tank must not vary by more than 10 % around the average position)

If a system is intended to be equipped with several control systems, it forms a single range if:

- the various control systems are all different from a basic control system exclusively by the addition of the auxiliary function (remote communication, clock, ...), not modifying the control parameters (T, deviation, hysteresis algorithm)
 - the control taken into account is the basic control.
- the same tank model, i.e. having the following identical elements:
 - brand or trade reference corresponding to an identical production,
 - position (horizontal or vertical),
 - geometry (cylindrical, spherical,...),
 - relative position and type (low, high or middle) of the solar exchanger and auxiliary exchanger,
 - tank material,
 - heat losses: cooling constants (Wh/l/K/day not deviating more than 40 %)
 - internal coating

Two tanks, considered as two copies of the same range, can have the following differences:

- dimensions, no specific criteria relating to permissible variations of the height/diameter ratio, treated on a case by case basis as necessary
- the number of available auxiliary system types, if the other characteristics are identical: a range is defined for a given type of auxiliary (hydraulic or electric) heating. During the tests a tank with mixed auxiliary heat can be defined with respect to its electric auxiliary on the one hand, and to its hydraulic auxiliary on the other hand.
For example: (a tank with mixed auxiliary source whose electric auxiliary heating is defined belongs to the same range of tank as tanks with electrically auxiliary heating, other things being equal.

- transfer units having the same technical characteristics; the characteristics of the pump and surge tank can be adapted to the size of the domestic solar water heater (CESI).

The close-coupled system which the collectors cannot be certified separately is not concerned by the notion of range.

In support of its application, the applicant shall submit a file for each manufacturing site producing products for which mark certification is sought. The documents or information required are specified in § 3.1.2. below.

The application can be accepted only if the checks provided for in Part 2 of these rules are regularly conducted for the products considered for at least three months.

The application must be accompanied by payment of the corresponding fees.

If the applicant does not belong to a member country of the European Economic Area, the application must be submitted through a mandated body.

Before affixing the NF Mark, all changes made to the range defined for admission must be reported to CERTITA which determines whether or not further testing is required.

3.1.2. DOCUMENTS TO PROVIDE

All documents must be submitted in French or English, except documents intended for the installer and the user which must be in French.

- Standard application for admission reproduced on the manufacturer's letterhead, and established according to the enclosed model (Form No. 1a with its appendix in the case of applications from outside the European Economic Area), including:
 - . general information sheet (form 1b)
 - . list of models for which the NF Mark is requested (form 1c -1 and/or 1c-2)
- File including:
 - . presentation of the production unit: location, other main products manufactured in the unit, general plant organisation, subcontracting,
 - . as necessary, declarations of CE compliance in reference to the electrical safety and electromagnetic compatibility directives, accompanied by electrical safety testing reports as per EN 60335-1 and EN 60335-2-21,
 - . a dimensioned drawing of all the products,
 - . data sheet including the characteristics of the equipment and/or accessories presented and the different models,
 - . description of the heat transfer fluid(s): commercial brand, name of the manufacturer, data sheet (density, heat capacity...), material safety data sheet, and compliance to hygiene and health standards,
 - . user manual accompanying the apparatus and/or the accessories,
 - . equipment marking,
 - . manual of quality plan,
 - . description of the manufacturing process and associated inspection plan (measurement accuracy and tests performed and their frequency),
 - . certificate of compliance of the quality management system (if any),
 - . general organisation chart of the plant and organisation chart of the department in charge of quality,
 - . sales catalogue of products and/or accessories manufactured, distribution method(s),
 - . description of the various processes with a definition of inputs, outputs, activities included in each process in reference to standard ISO 9001 (2008),
 - . exploded-view drawing of each model,
 - . parts list of the component parts of each apparatus presented, specifying whether these parts are produced by the manufacturer or subcontractors,
 - . all other information required to perform tests
 - . VES 40 report (module of calculation downloadable on CSTB website)
http://enr.cstb.fr/webzine/preview.asp?id_une=161

FORM No. 1a
APPLICATION FOR ADMISSION
(To be provided on the applicant's letterhead)

PURPOSE: Application for the right to use the NF Mark – CESI (domestic solar water heater)

I the undersigned (name and position)
representing the company (identification of the company - registered office)
request the CERTITA to carry out the verifications required to obtain the right to use the NF Mark for the
products stipulated in the enclosed table, in compliance with the requirements of Part 2 of the NF
certification rules.

These products are manufactured in the plant of (company identification and complete address of the
plant).

I hereby declare that I have read the reference standards, general rules of the NF Mark and the
certification rules and agree to respect them during the entire duration of use of the NF Mark.

Date
Stamp and signature
of the applicant

Stamp and signature
of the manufacturing site
(if different from the applicant)

APPENDIX TO THE APPLICATION FOR ADMISSION (1)

I hereby authorise the company (2).....
represented by Mr (name and position).....

to act on my behalf in France for all matters relating to the use of the NF Mark.

As such, I hereby request that expenses for which I am responsible be invoiced to it directly. It hereby
accepts this mandate and agrees to pay invoices upon receipt.

I agree to immediately notify CERTITA of any changes in the mandated body designated above.

Sincerely,

Date
Stamp and signature
mandated body's representative(3)

Stamp and signature
applicant's representative(3)

-
- (1) This appendix is to be completed only by applicants outside the European Economic Area.
 - (2) The designation of the mandated company shall include the following information: corporate name, corporate status, registered office, Trade Register number.
 - (3) The signatures of the **applicant** and its representative shall be preceded by the hand written endorsement "Bon pour mandat" (Valid for mandate) and "Bon pour acceptation de mandat" (Valid for acceptance), respectively.

FORM 1b

GENERAL INFORMATION SHEET

Company name and address of the applicant:

Correspondent name:

Telephone:

Fax:

e-mail:

SIRET n° **APE Code**

VAT ID number

Kit assembly location:

Name of the correspondent:

Telephone:

Fax:

Email:

Address of the fabrication plant of tanks

Name of the correspondent:

Telephone:

Fax:

Email:

Address of the fabrication plant of collectors

Name of the correspondent:

Telephone:

Fax:

Email:

As necessary, name and address of the mandated body in Europe:

Name and address of the After-Sales Service Supervisor:

Signed in

date

Signature

FORM No. 1c-1

General informations	Company:	
	Trade mark:	
	Name of the range:	
	Type of auxilliary:	

Collector	Name of the collector :	
	Type of collector:	
	Type of certification:	
	Reference of certificate:	
	End of validity:	
	Implented	

Tank	Name, reference of the tank	
	Tank material :	
	Cooling constant	
	Of the reference tank	
	Type of auxilliary	

Heat transfer fluid	Name of the fluid:	
----------------------------	--------------------	--

Control system	Reference of the control system	
-----------------------	---------------------------------	--

Reference of the model	<i>Volume nominal(l)</i>	Volume réel(l)	Aera of the solar exchanger (m ²)	<i>Surface de captage (m²)</i>

Name of the applicant

Date

Stamp and signature

3.2. INITIAL EVALUATION PROCESS

3.2.1. EXAMINATION OF THE CERTIFICATION APPLICATION

The application and the attached file sent to CERTITA are subject to initial screening prior to the simulations and verifications at the manufacturing sites (and testing after the transient period).

If certain elements do not meet the requirements of the certification rules, CERTITA shall inform the applicant and conduct the audit only upon presentation of a new file that is deemed fully compliant with the requirements of the NF Mark.

An on-site audit is prepared when the file is complete and fees have been paid.

3.2.2. ON SITE VERIFICATIONS AND/OR ON THE DISTRIBUTOR'S PREMISES:

The examination phase involves an audit of the following

- the plant where the products presented for admission are assembled,
- the production units of the main components: collectors (if not certified) and storage tanks, and
- the mandated body (distributor), as the case may be.

3.2.2.1. Quality audit

The auditor(s):

- Conduct(s) an audit designed to verify the existence and implementation of the quality provisions established by the manufacturer and their compliance with the requirements set out in Part 2 of these rules. In the case of close-coupled systems and, due to the lack of CSTBat or Solar Keymark certification of the collector, the corresponding internal control requirements are checked during the audit.

This audit is carried out according to the general principles defined by standard NF ISO 19011 regarding the quality audit, in particular the scope of the audit and the details of the procedures are stipulated in an audit plan sent to the company before the audit begins.

- Verify(ies) that the checks required in Part 2 have been conducted regularly for at least for the last 3 months.

With the manufacturer's agreement, the auditor may make a copy any document he/she considers necessary. The duration of the site audit is 1.5 to 4 days (including audit preparation, the audit itself and report writing).

Case of companies forming the subject of certification of the quality management system

In cases where the compliance of the quality management system is the subject of certification, issued by an organisation meeting the requirements of standard NF EN ISO/CEI 17021 and recognized by CERTITA, the verification of the quality management system is reduced: the duration of the audit is adjusted. In this case, the duration of the site audit is 1 to 3 days (including audit preparation, the audit itself and report writing).

The audit reports prepared by the quality management system certifying body must be sent to the auditor or consulted on site.

Following the audit, the lead auditor establishes an audit report detailing the effectiveness of the quality organisation implemented, the strengths, weaknesses and an explicit statement of non-conformities . It also includes a sample sheet.

The lead auditor establishes 2 copies of this report and sends one to CERTITA. The applicant is given the original.

The applicant shall inform CERTITA of any corrective actions taken following the non-conformities found.

3.2.3. TESTS AND SIMULATIONS

The tests, simulations and extrapolation calculations to be performed by the independent laboratory (see list of laboratories in Part 5) are those defined in Part 2 concerning the models presented for admission.

The test reports prepared by laboratories other than those listed in Part 5 may be considered in the scope of the examination of an application on a case by case basis taking into account the laboratory's accreditation in relation to the relevant testing standards.

The applicant shall inform CERTITA of any corrective actions taken following the non-conformities found.

3.2.4. EVALUATION

CERTITA evaluates the reports intended for the applicant and, when needed, presents a summary of the audit findings and the results of tests and simulations, in anonymous form, to the Mark Committee.

The presentation of this summary shall clearly indicate, where appropriate, the points on which the products presented or controls established by the manufacturer, do not strictly comply with the requirements set out in Part 2 of these certification rules.

After examining the various elements of the file, the Mark Committee proposes to grant or refuse the right to use the NF Mark.

3.2.5. DECISION AND NOTIFICATION

Based on the results obtained during the processing of the application and any proposals by the Mark Committee, CERTITA gives the applicant one of the following decisions:

- a) Approval of the right to use the Mark
- b) Denial of the right to use the Mark

A decision may be deferred in order to further investigate the application.

In compliance with article 12 General Rules of the NF Mark, the applicant may contest the decision.

When the right to use the NF Mark is granted, its beneficiary is referred to as the "licensee". Maintaining this right is subject to the results of the verifications defined in Part 4.

Exercising the right to use the Mark shall be strictly limited to products for which it has been granted, i.e. duly defined products produced in duly defined plants, and manufactured in the conditions stipulated in these Rules.

The certified characteristics are:

- energy efficiency
- energy supplied by the solar system (for domestic solar water heaters without auxiliary heating)
- the effective collector loop area
- heat loss coefficient of the collector
- heat loss coefficient of the storage tank
- heat capacity of the storage tank
- the fraction of the storage volume used for auxiliary heating

as defined in § 2.1.3, Part 2 of these rules.

Only the first two characteristics are available during the transitional period for determining the thermal performance characteristics by simulation.

3.2.6. Ranges of products at a commercial ending.

Are concerned the products whose replacement by new products will occur in the first half of 2012.

The products which are currently sold-would no longer be when the tests results are available.

Certificates will be delivered only based on of simulation for commercial ending ranges and have 6 month validity.

Starting from the publishing of the certificates, the manufacturer has three months to send an application form for its new ranges to CERTITA.

The terms appearing on § 3.2 should be fully applied before obtaining the certificates.



39/41, rue Louis Blanc
92400 COURBEVOIE
Tél. : 01 47 17 64 85
www.certita.fr

Certification body

Notified by

AFNOR Certification

11, rue Francis de Préssencé
93571 LA PLAINE ST DENIS Cedex
Tél :01 41 62 80 00 – Fax :01 49 17 90 00

CERTIFICATION RULES

NF MARK – DOMESTIC SOLAR WATER HEATERS

PART 4

CERTIFIED PRODUCT SURVEILLANCE PROCESS - MODIFICATIONS AND DEVELOPMENT

CONTENTS

- 4.1. Certified product surveillance process**
- 4.2. Modification and development of company organisation or the certified product**

Rev 2 – March 2012

4.1. CERTIFIED PRODUCT SURVEILLANCE PROCESS

CERTITA organises surveillance of certified products by performing verification operations at manufacturing sites or distributors. Such operations are designed to substantiate the licensee's compliance with its obligations.

4.1.1. FREQUENCY OF VERIFICATIONS

At least one audit per year is conducted at the manufacturing units (collectors (if not certified) and storage tanks).

When, for a given range, the corresponding tanks are manufactured in multiple production units, the audits of these units may be conducted by sampling so as to involve only part of the units each year, provided that no critical non-conformities were present during the previous audit.

Additional audits may be carried out at the request of the Mark Committee or upon CERTITA's request.

4.1.2. FACTORY VERIFICATIONS

The examinations carried out primarily concern any modifications made since the previous audit and that affect manufacturing, inspection methods or any modification of the quality management system.

- During each audit, a quality audit is carried out according to the general principles defined by standard ISO 19011 (in particular, the scope of the audit and the details of the procedures are stipulated in an audit plan sent to the company before the audit begins). In the case of close-coupled systems and, due to the lack of CSTBat or Solar Keymark certification of the collector, the corresponding internal control requirements are checked during the audit

Furthermore, every one or two years, depending on the ranges admitted (see § 4.1.2.2) a sample of products is taken from stock (or failing this, during the manufacturing process) for tests at the Mark laboratory in order to validate the results obtained by the manufacturer (see § 4.1.2.2.).

During the audit, the auditor may have compliance tests conducted on admitted products, in his/her presence, in order to verify the conditions under which inspections are carried out by the manufacturer. Preferably, these tests are carried out on the type sampled for tests in the Mark laboratory.

With the manufacturer's agreement, the auditor may copy any document he/she considers necessary.

4.1.2.1. Quality audit

a) Case of companies with a certified quality management system

If the conformity of the quality management system has been recognised by certification awarded by an organisation meeting the requirements of standard NF ISO/IEC 17021 and recognised by AFNOR Certification or CERTITA, the verification of the quality management system is reduced: the duration of the audit is adjusted.

However, it includes obligatory verification of the special requirements imposed by the NF Mark (see § 2.2.2., part 2).

The general requirements (§ 2.2.1. part 2) can be verified during various annual follow-up audits by sampling.

The audit reports prepared by the quality management system certifying body must be sent to the auditor or consulted on site.

The duration of the site audit is 1 to 2 days (including audit preparation, the audit itself and report writing).

a) Case of companies without a certified quality management system

Verification of the quality management measures must include, during each audit, verification that the specific requirements of the NF Mark (§ 2.2.2. Part 2) and the following chapters of standard NF EN ISO 9001 (2008), are observed, through the process defined by the manufacturer:

- 7.5.3. Identification and traceability,
- 7.5.4. Preservation of product,
- 7.6. Control of monitoring and measuring equipment,
- 8.2.4. Product monitoring and measurement,
- 8.3. Control of nonconforming product,
- 8.5.2. Corrective action.

The other processes (and chapters of the standard) are verified during the various annual follow-up audits (in alternation).

In this case, the duration of the site audit is 1.5 to 3 days (including audit preparation, the audit itself and report writing).

At the end of the audit, the lead auditor prepares an audit report drawing special attention to the effectiveness of the quality system set up, the strong points, weak points and a commented report of non-conformities. It also includes the report of tests carried out during the audit and the sampling sheet.

If tests are carried out during the audit, the test report and the sampling sheet must be attached to this report.

The lead auditor establishes 2 copies of this report and sends one to CERTITA. He/she gives the original copy to the licensee.

The licensee shall inform CERTITA of any corrective actions adopted following the detection of non-conformities.

4.1.2.2. Sampling

The samples are based on a model domestic solar water heater (CESI) tested during the admission tests.

Up to 5 certified ranges, a sample is taken every 2 years.

Beyond 5 certified ranges, a sample is taken of a model on a yearly basis.

The samples taken must be accompanied by information which allows the manufacturing batch to be identified.

They are marked by the auditor and sent within 15 days by the manufacturer, under its responsibility, to the independent laboratory in charge of carrying out the tests.

A sheet listing the samples taken is established on site and submitted to the manufacturer. It is recognized that in the event these samples cannot be taken, the manufacturer shall send the samples required by the auditor to the Mark's laboratory within the prescribed deadlines.

4.1.3. TESTS

The domestic solar water heaters (CESI) sampled for auditing are subject to testing in order to verify the certified performance characteristics described below and performed by Mark laboratories (see Part 5) or by CERTITA sub-contractor laboratories.

Verification testing programme:

The model sampled is tested according to the S-Store sequence of § 6.3.5 of ISO 9459-5. This sequence is carried out using In Situ software by integrating the results of admission tests of the other sequences.

If, for a given model, the recalculated values of the thermal performance characteristics differ from the reference values by more than 10 %, the mandated body may conduct a full test in accordance with the requirements specified in Part 2 of these rules.

Electrical safety: if the licensee chooses not to perform unitary testing of the electric hot water tanks stipulated in § 2.2.1, electrical safety tests are performed by the Mark laboratory on the sampled product.

The licensee is sent a test report on the samples taken during the audit.

The licensee shall inform CERTITA of any corrective actions adopted following the detection of non-conformities.

Based on the conclusions of the follow-up audit and findings established for this occasion, CERTITA may have the Mark laboratories perform additional tests to verify product compliance.

4.1.4. VERIFICATIONS AT COMMERCIAL OUTLETS

In addition to the previous measures, checks can be carried out on samples taken from commercial outlets at CERTITA's recommendation. The results are sent to the licensee concerned.

4.1.5. EVALUATION

CERTITA evaluates the reports intended for the applicant and, when needed, presents a summary of the audit findings and the results of tests, in anonymous form, to the Mark Committee.

Documents examined during each session of the Mark Committee must be presented in anonymous form.

Sanctions may be proposed by the Mark Committee, if necessary.

4.1.6. DECISION AND NOTIFICATION

Based on the inspection results and any proposals submitted by the Mark Committee, CERTITA notifies the licensee of one of the following decisions:

- a) Renewal of the right to use the Mark. This renewal may include comments or a request for corrective action, if necessary.
- b) Conditional renewal of the right to use the Mark with a notice to correct any detected breach within a specific deadline. This conditional renewal may or may not be accompanied by increased inspections, testing or audits (possibly unannounced).
- c) Suspension of the right to use the Mark (suspension has a maximum duration of one year and is renewable only once. After this, withdrawal of the right of use is pronounced).
- d) Withdrawal of the right to use the Mark.

For sanctions b), c) and d), the fees for additional verifications are charged to the licensee, regardless of their results. The decisions are enforceable as from the date of notification.

In compliance with Article 12 of the General Rules of the NF Mark, the applicant may appeal the decision.

In the case of a serious infraction of the certification rules, CERTITA may, as a conservative measure and after confirmation of the infraction, make any decision provided for above. The decisions are reported to the Mark Committee.

4.2. MODIFICATIONS AND DEVELOPMENT OF COMPANY ORGANISATION OR CERTIFIED PRODUCT

4.2.1. MODIFICATION CONCERNING THE LICENSEE

In the case of merger, liquidation or acquisition of the licensee's company, any right to use the Mark shall cease automatically (see Article 4.4 of the General Rules). The licensee shall inform CERTITA without delay of any decision likely to result, at a later stage, in either a modification of the company's legal status or a change in the company name.

CERTITA is empowered, after consulting the Mark Committee if necessary, to examine the means by which any new application might be accepted.

4.2.2. TRANSFER OF PRODUCTION SITE

Before any total or partial transfer of production to a different manufacturing site, the licensee shall inform CERTITA in writing of new production arrangements under consideration and cease using the mark until the latter makes a decision following the verifications on a case by case basis, which may include an audit of the new manufacturing site and, if necessary, the case is put before the Mark Committee (renewal of the right to use the NF Mark or examination of a new application, with reduced or complete testing).

4.2.3. MODIFICATION OF THE ACCEPTED PRODUCT - NEW PRODUCTS

Extension request

NF-certified products shall comply with the technical file submitted with the application for acceptance, and shall take into account any observation made when the right to use the Mark was granted.

Consequently, any modification (including modifications concerning the manufacturing and inspection resources and the quality assurance system that could have a determining effect on production conformity) that the licensee wishes to make on accepted products must also be communicated to CERTITA in writing.

An application for a new model and/or a new range takes the form of an application for extension of the right to use the NF Mark (forms 1a and 1c defined in Part 3 and updating of the file).

Following examination of the application and the corresponding file, CERTITA determines which verifications and tests are to be conducted, if any, and informs the applicant of either acceptance "as is", preliminary inspections or referral to the Mark Committee.

The samples required for carrying out tests are sent by the licensee and under its responsibility, to the independent laboratory charged with carrying out the tests. They must be marked in a way that allows later authentication and be accompanied by information allowing the material batches used for their manufacture to be identified.

Application for maintenance

The right to use the NF Mark awarded to a product under a given designation or brand is not automatically extended to products which are similar and of the same origin, sold under a different name or brand.

The procedure which allows this involves the application to maintain the right to use the NF Mark.

A licensee of the NF Mark wanting to market this product through a distributor and under the commercial name of the latter must apply to maintain the right to use the NF Mark using the attached form.

This application must be countersigned by the distributor (and the mandated body, as required) and accompanied by the product technical data sheet.

4.2.4. TEMPORARY STOPPAGE OF PRODUCTION OR INSPECTION

The licensee must immediately inform CERTITA of any temporary stoppage of production or inspection of an accepted product.

If production is stopped for less than 6 months, CERTITA, after consulting the Mark Committee, can notify the licensee of the suspension or withdrawal of the right to use the Mark for the products concerned.

If the stoppage lasts 6 months or more, the licensee must request a temporary suspension of the right to use the mark (maximum duration: 1 year). After this period, the right of use is withdrawn.

If production is restarted, the manufacturer must notify CERTITA which will carry out an audit before the products are marketed under the NF Mark.

4.2.5. DEFINITIVE STOPPAGE OF PRODUCTION OR SURRENDER OF THE RIGHT OF USE

If the licensee definitively ceases production of an accepted product or surrenders the right to use the Mark, the licensee must inform CERTITA, indicating the time it considers necessary to deplete the remaining stock of products bearing the Mark. CERTITA proposes the conditions under which this stock can be depleted, after seeking the Mark Committee's opinion if necessary.

APPENDIX

APPLICATION TO MAINTAIN THE RIGHT TO USE THE NF MARK
(To be established on the licensee's or mandated body's letterhead
and signed by the distributor)

CERTITA

**39-41 rue Louis White
92400 COURBEVOIE**

SUBJECT: NF Mark – Domestic solar water heaters

Dear Sir,

It is my honour to apply for the maintenance of the right to use the NF Mark on products of my production which differ from those admitted to the NF mark only by their specific references (brand and commercial reference).

The company which is going to market these products:

(name and address of the distributor)

Admission reference of the basic model		Commercial brand(s), range(s) and commercial reference(s) requested by the distributor
Commercial brand(s), range(s) and reference(s) already certified	Certificate No. of the NF Mark	

Please find attached a copy of the distributor's commitment sheet.

Stamp and signature of the licensee
or the mandated body:

Stamp and signature
of the distributor:

Date



39/41, rue Louis Blanc
92400 COURBEVOIE
Tél. : 01 47 17 64 85
www.certita.fr

Certification body

Notified by

AFNOR Certification

11, rue Francis de Préssencé
93571 LA PLAINE ST DENIS Cedex
Tél :01 41 62 80 00 – Fax :01 49 17 90 00

CERTIFICATION RULES

NF MARK – DOMESTIC SOLAR WATER HEATERS

PART 5

PARTICIPATING ORGANISATIONS

CONTENTS

5.1 Mandated body

5.2 Audit organisations

5.3 Test organisations

5.4 NF Mark Committee

Rev 2 – March 2012

5.1. MANDATED BODY

AFNOR Certification assigns the sectoral management of the NF Mark application to CERTITA.

CERTITA, the mandated body, shall report to AFNOR Certification regarding all management operations assigned to it, in compliance with article 7.1 of the General Rules of the NF Mark.

All parties involved in the NF marking process are bound by professional secrecy. As necessary and upon request of the manufacturers, an agreement may be signed between CERTITA and the manufacturer.

5.2. AUDITED ORGANISATIONS

CERTITA assigns the audits to the following organisations:

CERTITA

39/41, rue Louis Blanc
92400 COURBEVOIE
Tel. (+33) (0)1 47 17 64 85

Laboratoire National de métrologie et d'Essais (LNE)

1, rue Gaston Boissier
75724 PARIS CEDEX 15
Tel. (+33) (0)1 40 43 37 00

Centre Scientifique et Technique du Bâtiment (CSTB)

84, avenue Jean Jaurès
77447 Marne la Vallée Cedex 2
Tel. (+33) (0)1 64 68 83 16

The licensee or applicant shall facilitate the operations undertaken by auditors in the performance of their duties.

The list of organisations above may be revised or updated by the mandated body following consultation with the Mark Committee.

5.3. TEST ORGANISATIONS

CERTITA assigns the tests to the independent laboratories designated below:

Centre d'essais et de recherche des systèmes solaires BELENOS

190, Parc Georges Besse
30035 NIMES Cedex

Centre Scientifique et Technique du Bâtiment (CSTB)

290, route des Lucioles
BP 209 – 06904 SOPHIA ANTIPOLIS Cedex

5.4. NF MARK COMMITTEE

5.4.1. COMMITTEE MAKE UP

A mark committee is established, the duties of which are defined in Article 7.3.2. of the General Rules of the NF Mark. The dominative composition of the committee is approved by CERTITA, each member being informed by CERTITA.

The term of office for members is 3 years and may be renewed by tacit agreement.

The Chairman of the NF Mark Committee is nominated in observance of the same conditions, following consultation of the NF Mark Committee. The position is held in alternation among colleges. However, the Chairman's term of office may be extended one or more years, if none of the other colleges submit a candidate.

The performance of the duties of an NF Mark Committee member is strictly personal. However, if the member is unable to discharge his/her duties, an alternate is designated and named under the same conditions.

CERTITA compiles the observations and proposals formulated during committee meetings. This report is sent to all members of the NF Mark Committee.

5.4.2. COMMITTEE MEMBERSHIP

1 Chairman (to be designated by the Committee members)

2 Vice Chairman:

1 AFNOR Certification representative

1 representative from the mandated body: CERTITA

Manufacturers

5 to 7 representatives of NF Mark licensees or applicants

Users, consumers, supporters: 5 to 7 representatives

Representative(s) for organisations supporting and promoting the NF Mark

Representative of consumers associations

Representative(s) of installers

Technical organisations

5 to 7 representatives, notably including:

1 AFNOR NORMALISATION representative

Representatives of audit and testing organisations

5.4.3. BOARD

For efficiency reasons, the NF Mark Committee can delegate its duties to a board, whose members are designated by name and selected among the members of the NF Mark Committee.

The board consists of the NF Mark Committee Chairman, a representative of each college, a CERTITA representative assisted by a submitter as required (representatives of laboratories and qualified auditors). Board meetings are held as required.

The work undertaken by the Board is reported during NF Mark Committee meetings.

5.4.4. Working group

For certain occasional activities not requiring that all NF Mark Committee members be notified, a working group may be created whose members are designated by name and selected among members of the NF Mark Committee.

External individuals or professionals may be called upon to assist with these activities.

The missions undertaken by this working group are specified by the NF Mark Committee; its duties will generally be limited to the development of projects, proposals or providing further information on a given topic on behalf of the NF Mark Committee.



39/41, rue Louis Blanc
92400 COURBEVOIE
Tél. : 01 47 17 64 85
www.certita.fr

**Certification body
Notified by**

AFNOR Certification

11, rue Francis de Préssencé
93571 LA PLAINE ST DENIS Cedex
Tél :01 41 62 80 00 – Fax :01 49 17 90 00

CERTIFICATION RULES

NF MARK – DOMESTIC SOLAR WATER HEATERS

PART 6

APPLICABLE FEES – TERMS OF PAYMENT

CONTENTS

- 6.1. Applicable fees**
- 6.2. Terms of payment**

6.1. APPLICABLE FEES

Fees for the services involved in obtaining certification and surveillance of certified products are indicated in a list of charges which may be revised annually. The rates for the current year are sent to all licensees of the mark.

The rates are expressed in Euro, and are exclusive of VAT. With regard to test fees, samples shall be delivered to the testing laboratory carriage-free and customs-cleared if necessary, within a period of time to exceed 2 weeks from the sampling date.

Invoices for tests are sent once the laboratory in charge of the tests is in possession of the samples.

6.1.1. FEES FOR OBTAINING CERTIFICATION (in € EXCL. VAT)

Services				Rate
Technical instruction of the files ⁽¹⁾				
• For the first range				2, 375
• For the following range, per range				990
• Issue of certificate on the basis of simulation/per certificate				350
Audit	Distributor	Production unit of collectors(*) or tanks	Manufacturer	Manufacturer including in the same site a production of collectors (*) or tanks
Fixed rate France or Europe (Additional stay and travel fees)	2, 040	2, 550	2, 040	3, 570
Additional charge for audits on sites outside Europe (to be added to the fixed rate above)				510
Simulations, tests and extrapolation calculations ⁽²⁾				
Simulation as per NF EN 15316-4-3				
• For the 1 st range				2, 000
• For the 2 nd range				1, 600
• For the 3 rd range				1, 000
Simulation as per NF EN 15316-4-3 for ranges				2, 000
Thermal performance tests as per ISO 9459-5 and NF EN 12976-2 (Classical Domestic Solar Water Heaters)				6, 400
Thermal performance tests as per ISO 9459-5 and NF EN 12976-2 (Domestic Solar Water Heaters powered by a auxiliary device inseparable from the tank)				7, 400
Extrapolation as per § 2.1.3.2 of the certification rule NF Mark – Domestic Solar Water Heater of the results obtained on the reference system to whole systems of a range/per range (for 15 models).				1, 600

(1) Management fees are charged at the minimum rate, per assembly site. However, additional fees may be charged on the basis of CERTITA's hourly rate, in case of review or additional technical assistance necessary to process an application.

(*) in the case of collectors not certified at the time of NF CESI application processing

(2) In case of review or additional technical assistance, necessary to process simulations, tests and extrapolations, a quotation will be done for these services.

6.1.2. MONITORING OF CERTIFIED PRODUCTS (in € EXCL. VAT)

Services				Rate
Quality follow-up of the file, - For the 1 st certificate - For the following certificate, per certificate				2, 375 150
Follow-up audit	Distributor	Production unit of collectors(*) or tanks	Manufacturer	Manufacturer including in the same site a production of collectors (*) or tanks
Fixed rate France or Europe (Additional stay and travel fees)	1, 530	2, 040	1, 530	2, 040
Additional charges for sites with no ISO 9001 certification				510
Additional charge for audits outside Europe				510
Follow-up tests: - Tests as per S-Store Sequence of §6.3.5 of ISO 9459-5				3, 500

6.1.3. ADMISSION EXTENSION (in € EXCL. VAT)

SERVICES	RATE
Technical instruction of the file (1) - per range	850
Tests	§ 6.1.1.

(1) Management fees are charged at the minimum rate. However, additional fees may be charged on the basis of CERTITA's hourly rate, in case of review or additional technical assistance necessary to process an application.

6.1.4. OBTAINING CERTIFICATION FOR A DISTRIBUTOR (in € EXCL. VAT)

SERVICES	RATE
Technical instruction of the file	
- first range	1,200
- for subsequent range	500
Audit	§ 6.1.1.

6.1.4. INVOICING OF LIVING AND TRANSPORTATION EXPENSES

Living and transportation expenses are invoiced based on actual costs

6.1.5. AUDIT CANCELLATION

Any cancellation of an audit, the date of which has been established between CERTITA and audited company, shall be invoiced on the following basis:

- cancellation 15 days to 8 days prior to the foreseen date: 50% of the audit amount
- cancellation 7 days to 3 days prior to the foreseen date: 75% of the audit amount
- cancellation 2 days before foreseen date: 100 % of the audit amount.

6.2. TERMS OF PAYMENT

6.2.1. COLLECTING PAYMENT

CERTITA, mandated body, is empowered to collect all payments.

The applicant or the licensee shall settle these invoices under the prescribed conditions: any failure on the part of the licensee prevents CERTITA from exercising its inspection and operating responsibilities incumbent on it by virtue of these regulations.

In cases where an initial formal notice by registered letter with acknowledgment of receipt does not result in the payment of all sums due within one month, CERTITA may adopt conservatory measures regarding the right to use the NF Mark for all of the licensee's allowed products.

6.2.2. OBTAINING CERTIFICATION

The services payable for each factory include the examination of files, the audit and simulation or testing on samples taken during this audit.

The fee for examination of the application is paid as a single sum when the application is filed and covers its examination (for a production site), its presentation to the Mark Committee, and contribution to the general operation of the mark and to the right to use the NF Mark paid to AFNOR Certification.

The test fee is payable once the laboratory in charge of the tests is in possession of the samples.

No fees relating to examination of the application can be refunded, regardless of the result of the examination.

6.2.3. CERTIFIED PRODUCT SURVEILLANCE

Invoicing covers the right to use the NF Mark, passed on to AFNOR Certification, application follow-up, and the audit and tests carried out on samples during this audit.

If acceptance is granted during the course of the year, the amounts invoiced correspond to the services provided. Invoices for tests are sent once the laboratory in charge of the tests is in possession of the samples .

Following product certification, CERTITA invoices the licensee the right to use the NF Mark on an annual basis and paid to AFNOR Certification. This license fee is included in these rates.

This licence fee is intended to cover:

- general operation of the NF Mark (organisation of quality assurance, monitoring of bodies in the NF network, management of the certification committee),
- defence of the NF Mark: filing and protecting the mark, legal advice, processing of appeals, legal fees,
- contribution to the general promotion of the NF Mark.

The fee for following up the application cannot be refunded even if a decision is made to withdraw the right of use.

6.2.4. ADDITIONAL VERIFICATIONS

Costs resulting from additional audits or tests are payable by the manufacturer, regardless of the results.

Additional examination of the application is also invoiced for the processing of inadequacies or anomalies observed by CERTITA or following sanctions proposed by the committee.

Inspections continue and the corresponding fees continue to be charged for as long as stocks of NF-marked products remain on the licensee's premises.