TECHNICAL CERTIFICATION RULES OF THE EUROVENT CERTIFIED PERFORMANCE MARK

COOLING TOWERS

Identification: ECP-04 CT

Revision 2021 – **July**
(This version cancels and replaces any previous versions)

Approbation date: 24/06/2021

Comes into effect from: 01/07/2021

The purpose of this Technical Certification Rules is to prescribe procedures for the operation of the Eurovent Certified Performance (ECP) certification programme for Cooling Towers (CT), in accordance with the Certification Manual.

Modifications as against last version:

No.	Modifications	Section	Page
1	Addition of the Certify-more principle with stepped implementation plan.	I.1.2	5
2	Sentence added - Factory / on-site audits can be performed also remotely based on the 'Eligibility' as outlined in the Certification Manual (Appendix L). However, also remote audits can be introduced in case of force majeure as outlined also in the Certification Manual – Terms of Requirements.	III.1.3.1	10
3	Change title Factory / Site Audit (On-site or Remotely):	III.1.3.1	10

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I. GENERAL INFORMATION

I.1. Scope

I.1.1. General

The programme scope covers factory packaged Cooling Tower product series (family) & subgroup ranges (or product lines) of Open & Closed-Circuit series Cooling Towers.

The programme applies to product series & sub-group ranges that:

- have already achieved and hold current certification by the **COOLING TECHNOLOGY INSTITUTE (CTI)** according to latest CTI STD-201OM
- are not in process or certified by CTI before 01/10/2010, manufactured by a company with their cooling tower headquarter or main facility located in the following areas (approved Eurovent Certita Certification areas)
    - Europe
    - Middle East, Africa
    - India

The ECP certification is a worldwide certification programme working in collaboration with CTI, it can be obtained directly for products manufactured or sold in the approved Eurovent Certita Certification areas. Manufacturers from other areas of the world should contact CTI directly. CTI is also offering the possibility to manage access to the Eurovent Certita Certification certificate when requested by the manufacturer. Conversely, Eurovent Certita Certification is offering the possibility for access to the CTI label when requested by the manufacturer after a Eurovent Certita Certification certificate is obtained.

Certification by Eurovent Certita Certification does not imply compliance with any local regulations (like CE marking).

I.1.2. Certify-more Principle

During 2020 the programme committee for cooling towers has been working to develop a certify-more principle, with a stepped introduction plan. This principle covers products that is sold into Europe and European markets as specified in the certification manual together with the introduction plan below (It shall be noted that the product unit quantity considers all factories that produce the product ranges for the European market):

a) Starting **January 1st, 2022** all participants shall certify their main range with the scope of the certification programme (I.1), and main option. Any option representing more than 20% of unit quantity within a range shall be required to be part of the certified range. This requirement will be checked during the 2022 factory audit based on 2021-unit quantity sales volume for Europe and European market.

Any new range released by the participant from **January 1st, 2022** within the scope of certification (I.1) shall declare it to Eurovent Certita Certification for inclusion of the certification process.

b) From **January 1st, 2024** 50% of all in scope (I.1) certifiable units must be certified units. This requirement will be checked during the 2024 factory audit based on 2023-unit quantity sales volume for Europe and European market.

c) From **January 1st, 2026** 80% of all in scope (I.1) certifiable units must be certified units. This requirement will be checked during the 2026 factory audit based on 2025-unit quantity sales volume for Europe and European market.

I.2. Certified Performances

Certified performance items are defined in the CTI STD-201 OM/RS.

I.3. Definitions

In addition to the definitions specified in the Certification Manual, the following definitions apply:

ALL definitions shall be per CTI STD0201 Operation Manual (OM) as well as:

Critical non-conformity: A non-conformity is classified as 'critical' when based on objective evidence:

- there is a significant risk to the product's conformity to specified requirements, or
- there is a significant risk on management system's ability to control the product's conformity to specified requirements, or
- there is systematic or repeated non-conformity to a specified requirement.

Non-critical non-conformity: A non-conformity is classified as 'non-critical' when based on objective evidence:

- there is no significant risk to the product's conformity to specified requirements, or
- there is no significant risk on management system's ability to control the product's conformity to specified requirements, or
- there is no systematic or repeated non-conformity to a specified requirement.

I.4. Contributors

The lists of contributors are given for information and may be modified by EUROVENT CERTITA CERTIFICATION whenever necessary.

I.4.1. Audit Body

The audit functions are performed by the following body(ies), called audit body:

EUROVENT CERTITA CERTIFICATION SAS
48/50 rue de la Victoire
F- 75009 PARIS
Tel : + 33 1 75 44 71 71
www.eurovent-certification.com

EUROVENT CERTITA CERTIFICATION Ltd
Kemp House 152-160 City Road
London, EC1V 2NX
United Kingdom
Tel : +44 07896711612

A.M.I.A.S. – Arnaud MIRATON
36 boulevard Saint-Michel,
FR-75006 PARIS

I.4.2. Independent Laboratory / Test Body

When the checks carried out involve product tests, these are performed as part of the CTI STD201 and controlled by the CTI Certification Administrator:

CleanAir Engineering, Inc.
7936 Conner Road
Powell, TN 37849
USA
Tel : +1-865-938-7555
cleanair.com/performancegroup

CTI in collaboration with ECC use independent licensed thermal certification testing agencies, which can be found on the CTI website: https://www.coolingtechnology.org/thermal-testing

II. REQUIREMENTS OF THE REFERENCE DOCUMENT

II.1. Reference Documents

II.1.1. Product and Test Standards

The test procedure is detailed in the technical appendix and in the product and test standards.
The applicable standards are as follow:

- CTI STD 201 RS – Performance Rating of Evaporative Heat Rejection Equipment
- CTI ATC 105 – Acceptance Test Code for Water Cooling Towers
- CTI ATC 105S - Acceptance Test Code for Closed Circuit Cooling Towers

II.1.2. Specific Technical Requirements

II.1.2.1. Software

An English version of the software selection tool is necessary. Each quotation of a certified CT shall include the date/code/number of the software version used for the selection of the unit. From the version code-key it shall be possible to check what the latest technical software version is by splitting up the code in more characters. An example of a suitable code is given below:

MySoft:vXY / Z

Z: characters indicating a version serial number, not affecting the selection results

XY: characters to indicate the technical version serial number

The participant is obliged to send the most recent technical software version to Eurovent Certita Certification, and should any updates become available before the next audit a FORM CT-3 software update record sheet, shall be presented to ECC.

The selection software shall be operative as an entity with all unit components integrated in one software. Components within the Cooling Tower that are selected with different software or any other means of selection cannot be certified (unless approved by CTI in the scope of the STD 201OM). The units of the applied range shall be built with components specified in the selection software.

Consistency of the software shall be verified by the auditor appointed by Eurovent Certita Certification. In case inconsistency of the software is observed, failure treatment shall be applied.

Anytime, Eurovent Certita Certification has the right to collect data directly from the customer and perform extra checking of software.

II.2. Specific Requirements and Quality Management

Production Requirements

Use of Mark Logo

The participant shall respect the marking requirements of the present certification manual and of the Technical certification rules if the logo is used on its products and/or services an all the relative documentations

Management of Customer Claims

Customer claim and their treatment related to certified products shall be done, recorded, and maintained available.

II.3. Marking

It is highly recommended that the participating company indicates participation in the EUROVENT CERTIFIED PERFORMANCE (ECP) programme for Cooling Towers by the following means.

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

The mark shall include the mentions indicated in the logo below:

Figure 1: ECP mark for Cooling Towers

II.3.1. Display of Eurovent Certified Performance logo on Production Units

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

Each Participant shall display the ECP mark, in an authorised manner, on units of models which have been certified. The participant shall display the symbol on each certified production unit by means of a label, approved by Eurovent Certita Certification. It shall be noted that should the range name & diploma number not be included on the ECP mark, then this information shall be required on an alternative permanent location on the unit e.g. unit data name plate.

No data or other marking shall be added to the label. The participant may affix the ECP mark at any location thereon satisfactory to him.

II.3.2. Display of Eurovent Certified Performance logo on Technical Documentation

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

Each participant shall display the ECP mark on the selection output when the unit application is operating within the certification scope, when outside this scope a clear declaration note shall indicate that this performance is not within the scope of certification and no ECP mark shall be applied. There can however be a declaration note indicating that the base unit within normal operation is Eurovent certified.

III. CERTIFICATION PROCESS

III.1. Admission Procedure

III.1.1. Declaration of Data

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

The Applicant, after signing the Certification Agreement, shall send to EUROVENT CERTITA CERTIFICATION all information required for the qualification.

Submittal of data shall be made by filling in the forms provided by EUROVENT CERTITA CERTIFICATION as .xls or .xlsx files.

The forms shall be sent by e-mail to EUROVENT CERTITA CERTIFICATION within the time limits specified in Certification Schedule (APPENDIX C – Campaign schedule, if applicable).

Copies of the forms are part of this Technical Certification Rules (see Appendix B).

- For the Company general information, Form CT-1 shall be used
- An Authorization form shall be filled in, Form CT-2, signed and sent by post to Eurovent Certita Certification (3 copies)

- Form CT-3 Selection software update record sheet shall be completed to provide initial revision declaration of the software tool & also when revisions have been made that have an impact on certification performance, ECC will maintain its website to maintain the latest revision.
- Form CT-4 shall be completed for declaration of any factory where the product series / subgroup ranges to be certified are manufactured (inside or outside Europe), as Factory List.
- For all selected series / sub-group ranges submitted by an Original Equipment Manufacturer (OEM), Form CT-5 shall be used as Declaration list.
- For all selected series / sub-group ranges submitted by a Brand Name Manufacturer (BNM), Form CT-6 shall be used to identify the corresponding model number of the OEM as Declaration List.
- For equipment manufactured in approved Eurovent Certita Certification areas, a Technical datasheet (or Data of Record) shall be completed, with technical description of all components including website address & selection software tool version, in Form CT-5. All characteristics shall be expressed in SI Units.

Confidentiality of certification data: All data submitted to Eurovent Certita Certification shall be held confidential except for information authorised to be published in the Eurovent Certified Performance website.

III.1.2. Admissibility of the Application

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

After the certification agreement is signed between the company and Eurovent Certita Certification, the qualifying procedure shall be articulated in the following:

- Ranges (lines) analysis based on declared data. As declared in the CTI STD 201 OM a manufacturer may declare a product range / line with a denotation of a series (family name) which in turn may have sub-ranges (groups) declared. These sub-ranges are of similar characteristics, i.e. module size, and any differences to performance must be identified in the notes after the model declaration. The thermal performance of any model in a sub-range will also certify the series associated to the declared sub-range. In the case of Eurovent Certita Certification the Data of Record, Diploma & ECP Website, will identity the series name & any associated sub-ranges. Each sub-range will have its own diploma no. due to the possibility that not all sub-ranges from the CTI certified series are being ECP certified, and as Eurovent Certita Certification also certifies the factory location, not all sub-ranges in a CTI certified series may be produced in all manufacturing locations. The purpose of this breakdown of product sub-group to series structure in the Eurovent Certita Certification declaration is to enhance the transparency of the certification of series & sub-range usage that has been born from the CTI certification.
- Sample product to be tested - one product per range per year. Note: any sub-group range product model within a series can be tested to qualify the complete series.

Note: if admission through the CTI collaboration route, then Eurovent Certita Certification must receive the approval letter & test report from CTI administration.

III.1.3. Implementation of Checking Operations

The provisions of the Certification Manual apply.

III.1.3.1. Initial Admission Audit

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

Audit at manufacturing location (validation of conformity) of the declared ranges, covering the declared ranges - one audit per factory per year. Should the participant's new range already have undertaken the required thermal performance test, then the unit range can be declared via Fast track ECP certified with the intent of a factory audit within the first 8 months of certification (note, should this range be of a very low volume nature not to allow an audit to be conducted then the manufacturer shall provide a

declaration letter prior to the 8 month deadline to Eurovent Certita Certification, should a certifiable order then become available this must be immediately informed to Eurovent Certita Certification / Auditor so that an audit check can be arranged).

Factory / on-site audits can be performed also remotely based on the 'Eligibility' as outlined in the Certification Manual (Appendix L). However, also remote audits can be introduced in case of force majeure as outlined also in the Certification Manual – Terms of Requirements.

Should a participant be found to ship a range that has not been audited within this low volume category, then it will be reviewed by the certification committee for immediate critical non-conformity and possible suspension, until the range can be audited. Should the participant maintain a very low volume declaration within a two-year period, then it shall be required to provide ECC with a declaration letter together with an explanation why the product shall maintain its certification status, thereafter for each consecutive year the participant shall provide both the declaration letter supported with the explanation why the certification shall be maintained.
Note: The Fast track process is not eligible for new applicants entering certification.

Factory / Site Audit (On-site or Remotely):
During the factory audit the auditor can review any one of the sub-ranges in a given series for it to qualify the declared series & review the selection software tool for consistency. If the results show conformity with the CTI STD 201 RS, certification is granted according to the certification schedule.

The audit shall be done either in each of the relevant manufacturer's factories or on selected sites, if necessary. To determine this, Eurovent Certita Certification will contact the manufacturer requesting information about:

- relevant units in production
- relevant units delivered during the last 12 months

Based on that, Eurovent Certita Certification (auditor agency) will determine the site(s) for audit and advise the audit agency. If both options are possible the manufacturer's factory is the preferred choice.

Note: for the auditor's safety prior to factory or site audits the participant must provide in advance safety provisions to the auditor i.e. Safety Risk Assessment, Safety Needs including Equipment, etc. If these are not provided or confirmed, then the audit will not take place until they have been provided.

The audits shall be ordered by the manufacturer upon notice by Eurovent Certita Certification. The audit costs shall be paid by the manufacturer to Eurovent Certita Certification.

If audits are not conducted within the time limitations specified in the notification received from Eurovent Certita Certification, it is considered as non-application of procedures. In case of force majeure (e.g. accidents, labour disputes, natural events, acts of war) which would not allow Eurovent Certita Certification to perform a factory audit Eurovent Certita Certification can decide to replace it by another mean of verification (i.e. remote audit), to postpone it within a reasonable deadline or to cancel it.
For manufacturers presenting at least three product series / ranges, one series / range maximum may be carried over to the next year. This series / range must be audited on the following year to remain certified.

At any one of the manufacturing facilities product series / sub-group range audit rules:

- If > 20% or 10 models for a range / sub-group range is produced in one factory per year, then that range of product must be seen during the year's audit (except as defined within this TCR). Its certification will be valid for this factory.
- If < 20% or 10 models for a range / sub-group range is produced in one factory per year, date of (new) audit shall be fixed when the range / sub-group range can be seen at the factory within 6 months. Note: all Factory audits can take place during N year, therefore this enables manufacturer to have an extension for 6 months. This audit in N+1 will not constitute to the approval for the N+2year diploma. Should a range/s have no production in a given year this shall be classified as a very low volume unit and it is understood that the participants wish to

maintain certified so that possible orders may be achieved in the future. The participant shall provide before December 1st on each given year a declaration letter that no production activity has taken place of this range during the year. Should the participant maintain a very low volume declaration within a two-year period, then it shall be required to provide ECC with a declaration letter together with an explanation why the product shall maintain its certification status, thereafter for each consecutive year the participant shall provide both the declaration letter supported with the explanation why the certification shall be maintained.

This low volume rule shall not override the requirement as indicated above that if a manufacturer presents 3 products when only one can be carried over to the next year. If audits are not conducted within the time limitations specified in the notification received from Eurovent Certita Certification, it is considered as non-application of procedures.

Purpose of the audit is to:

- verify that the manufacturer builds the equipment that conforms as per registered data of record from each relevant factory; if products from the certified range series / subgroup cannot be observed in the factory, then field installations of models of that range series / sub-group sold in that year from the unavailable factory shall be audited;
- identify any issues that may arise regarding differences in regional sourcing of components, such as fans, fill, nozzles etc.
- verify that the software and its current version is the same as that has been used in the selection process for the Thermal performance certification test or of a higher revision that has been aligned with the results from the test or modification of the design. Software update tractability shall be provided to the auditor using FORM CT-3 software update record sheet.

Verification of purchase specifications declared in Data of Record (DOR):

Purchase specifications for the following components must comply with the data of record submitted:

- fans
- fill or raw material for fill in case of own production (e.g. pvc or pp)
- eliminators
- air inlet louvers. d. Verification of physical data
- note model number from nameplate
- check exterior dimensions
- check motor nominal capacity
- check fan type (brand and model), material, number of blades
- check fill type, material, number of layers, number of blades
- check tower geometry
- check water distribution design, nozzle type and number
- check eliminator type, material
- other features as per physical data sheet (i.e. Software Checking).
- Re-calculate the last thermal certification test result for each certified range, verifying that it still complies with the performance criteria.
- Re-selection of a previously sold order or quotation (within the last 6 months) for each certified range, verifying consistency of the result and tractability to any seen modifications. Should the auditor not be able to trace any reason why the performance or selection is any different, then this would be considered a critical non-conformity.

Audit Report and Audit Conclusions:

After evaluation, a non-conformity is classified ‘critical’ when the following cases are identified:

- there is a significant risk regarding the product conformity with respect to applicable requirements.
- there is a significant risk regarding the quality management system ability to control the product conformity with respect to applicable requirements
- a specific non-conformity already pointed out during a previous audit is observed again

Otherwise the non-conformity is non-critical. In case of non-conformity, the applicant / participant shall be requested to provide Eurovent Certita Certification with a corrective action plan within the deadline specified by the auditor (see below audit failure treatment procedure & figure 2).

ECC have created a non-conformity guideline document which can be used in-conjunction with the factory audit report to explain in more details why the non-conformity has been classified either critical or non-critical, should you wish to receive this document, then please ask your auditor during the factory visit.

Failure Treatment: In case of non-conformity, Eurovent Certita Certification shall initiate the appropriate failure treatment procedures. The outcome of the failure treatment procedures may be that the product range is suspended from certification for a minimum period of one year or longer until the nonconformity has been corrected.

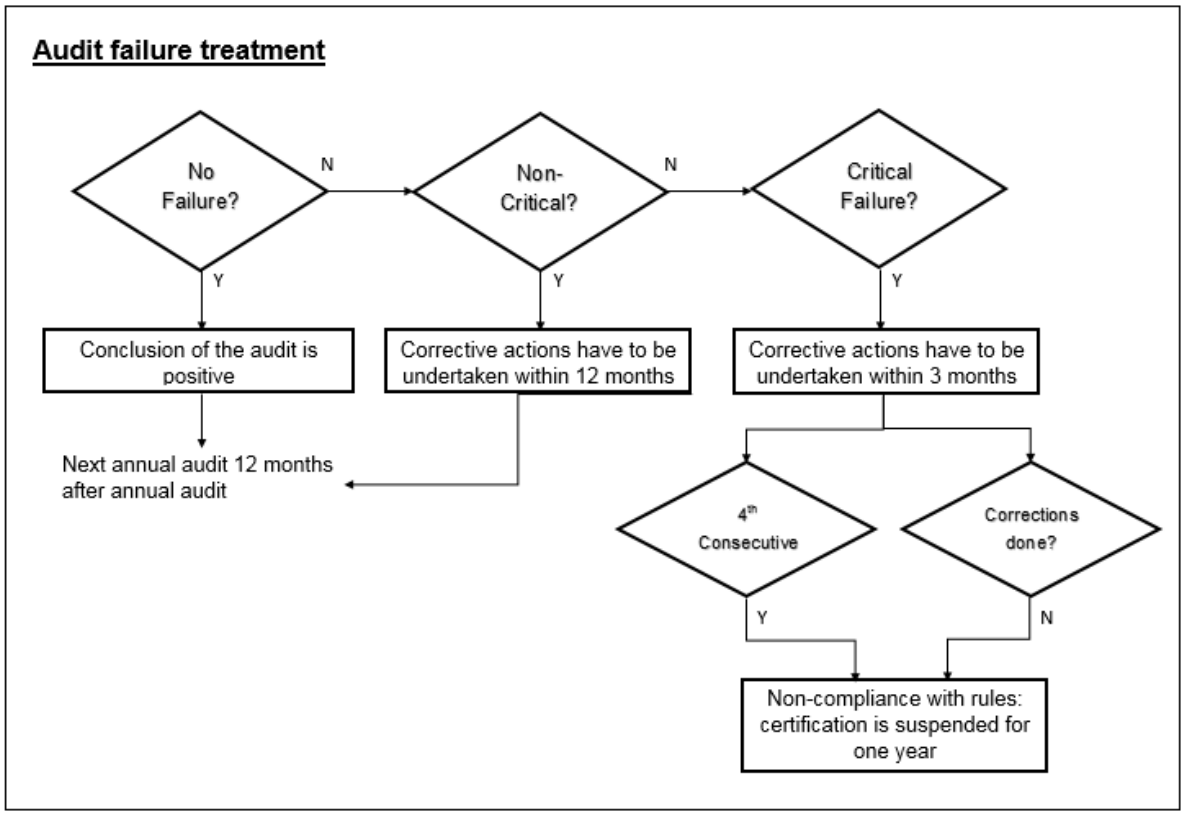
Challenge Procedure: Under special conditions a challenge procedure may be carried out as described in the Certification Manual.

The Audit failure treatment consists of the following (See Figure 2):

- In the case of non-critical non-conformity, the manufacturer shall send Eurovent Certita Certification the corrective action plan within 1 month of the audit with an indication date for when the corrective action(s) will be resolved. Any corrected documentation or DOR figures shall be required prior to the next audit of that factory.
- In case of critical non-conformity, the manufacturer shall send Eurovent Certita Certification the corrective action plan within 1 month of the audit with an indication date for when the corrective action(s) will be resolved. Any corrected documentation or DOR figures shall be required within 3 months. Should a critical non-conformity be found following a 'fast track' or 'very low volume' audit it shall be considered by the auditor if the performance quality of the product to the customer has been compromised. If this is the case, then the auditor may demand immediate provable corrective actions to take place and evidence passed to the ECC auditor using the corrective action report. Acceptance of the solved corrective action will be acknowledged by the auditor and passed back to the participant to enable shipment of the identified unit.
- Lack of documents: The Auditor requires clarification about one component described in the production BOM that the manufacturer does not have available to compare with declared Data of Record for a specific listed model checked (non-critical).
- Lack of Eurovent Certita Certification evidence: The label is used in Technical or Commercial documentation, but a listed model is not highlighted (non-critical). If not solved from previous audit, a non-critical non-conformity becomes a critical non-conformity.

After 4 consecutive audits with, at least, one critical non-conformity the Participant is considered for suspension for one year (see figure 2 – Audit Failure Treatment).

Figure 2 – Audit Failure Treatment



Traceability: To ensure the traceability of the products each certified product shall be marked to ensure traceability with respect to the plant (e.g. serial number) and factory address location.

III.1.3.2. Selection of Units to be Tested

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

ECC will use the rules as defined in the CTI STD 201 OM (see section I.2), the management of the selection of units will be the responsibility of the CTI technical administrator (see section I.4.2).

III.1.3.3. Tests at the Independent Laboratory

In addition to the provisions laid down in the Certification Manual, the following requirements apply

To comply with the CTI 201 std, the requirement for thermal performance certification testing all certification tests are conducted by CTI licensed Thermal Performance certification testing agencies, these are managed by the CTI technical administrator and the CTI multi-testing agency committee.

a. Time Limitation of Acquisition and Recovery of Units

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

To comply with the CTI 201 std.

b. Test Conditions

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

To comply with the CTI 201 std.

c. Failure Treatment

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

To comply with the CTI 201 std.

III.1.3.4. Software Checking Procedure

In addition to the provisions laid down in the Certification Manual, the following requirements apply

To comply with the CTI 201 std, software checking following a thermal performance certification test will be conducted by the CTI technical administrator.

III.1.3.5. Evaluation and Decision

In addition to the provisions laid down in the Certification Manual, the following requirements apply

To comply with the CTI 201 std, the evaluation and decision to approve the thermal performance test results is the responsibility of the CTI technical administrator who will in turn provide ECC with the thermal performance test result and approval letter. The ECC client manager together with the programme manager will review to make sure all required documentation is made available prior to making the recommendation to the certification committee.

III.2. Surveillance Procedure

The provisions of the Certification Manual apply.

III.2.1. Implementation of Surveillance Operations

The Participant must ensure that there is conformity between the Cooling Towers designs he manufactures and sells, and the design described in the application form and tested. Thermal performance conformity is verified on an annual base by an independent test agency, which performs a test of one model per product. If the verification on site is done, then the site must not be older than 12 (twelve) months from date of inspection.

If the manufacturer makes changes to his design, this will require a new application file and a new test. When all the results show conformity with the relevant CTI STD201 and this TCR document including factory audit and all fees have been settled, series / range certification is renewed according to the certification schedule.
Schedule of participation for Participants (also when converting from the CTI programme to include Eurovent Certita Certification) can be found in APPENDIX C.II.

III.2.1.1. Surveillance Audit

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

For the surveillance procedure, the surveillance audit follows the same rules than the admission audit.

III.2.1.2. Selection of Units to be Tested

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

For the surveillance procedure, the CTI administrator shall undertake an annual line management review & analysis as per CTI STD 201 OM and select from each range a unit to be thermal performance tested using the same rules of the admission procedure.

III.2.1.3. Surveillance Tests

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

For the surveillance procedure, the surveillance tests follow the same rules than the admission tests as conducted by CTI STD 201.

III.2.1.4. Software Checking Procedure

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

For the surveillance procedure, the surveillance software checking procedure follows the same rules than the admission audit.

III.2.1.5. Technical and Commercial Documentation Check

In addition to the provisions laid down in the Certification Manual apply and following the same rules than the admission documentation check.

III.2.2. Evaluation and Decision

The provisions of the Certification Manual apply

III.3 Declaration of Modifications

The provisions of the Certification Manual apply. In addition, the participant shall inform Eurovent Certita Certification of any declaration modifications using the correct FORM as outlined in the data application, admission procedure (see APPENDIX B).

III.3.1. Changes Concerning the Participant

The provisions of the Certification Manual apply. In addition, the participant shall inform Eurovent Certita Certification of any declaration modifications using the correct FORM as outlined in the data application, admission procedure (see APPENDIX B).

III.3.2. Changes Concerning Production Entities

The provisions of the Certification Manual apply. In addition, the participant shall inform Eurovent Certita Certification of any declaration modifications using the correct FORM as outlined in the data application, admission procedure (See APPENDIX B).

III.3.3. Changes Concerning the Quality Organisation of the Manufacturing and/or Marketing Process

The provisions of the Certification Manual apply.

III.3.4. Additional Admission for a New Model and/or New Range

The provisions of the Certification Manual apply. In addition, the participant shall inform Eurovent Certita Certification of any declaration modifications using the correct FORM as outlined in the data application, admission procedure (See APPENDIX B).

III.3.5. Changes Concerning the Certified Product

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

Participant shall inform Eurovent Certita Certification of any modification of the product portfolio by updating the declaration file (CT-1) and sending the updated selection software together with the software update record sheet CT-3. Non-compliance of the applicant/participant is considered as non-application of procedure as outlined in this TCR.

EUROVENT CERTITA CERTIFICATION decides whether the modification is significant for the certified performance data or not. In the case of significant modifications EUROVENT CERTITA CERTIFICATION is entitled to review this with the CTI administrator and to make additional test/s to check the influence on performance data. This test decision will be approved by the CTI STD 201 Certification Administrator and shall not be considered as a repetition one.

Naming Non-certified Product Series or Ranges (Lines)

When a manufacturer also produces a product series or range that does not require to submit for certification, they shall have a significantly different range name from the certified range. If the non-certified range can be selected in the same selection software tool, it shall be clear that this range is not certified. This rule has been included to avoid confusion between certified and non-certified ranges.

However, this rule does not override the CTI 201 OM for when application conditions take the selection out of the certified operation envelope.

III.3.6. Temporary or Permanent Cessation of Production of a Certified Product

In addition to the provisions laid down in the Certification Manual apply,

III.4. Suspension / Cessation Conditions

The provisions of the Certification Manual apply.

Appendix A. **TECHNICAL APPENDIXES**

A.1 Purpose

The purpose of this document and the CTI STD 201 OM/RS is to establish definitions and specifications for testing and rating of packaged Cooling Towers (CT) for the related Programme.

A.2 Testing Requirements

Specific testing requirements can be found test standards ATC105 & ATC105S, these shall be indicated from the CTI STD 201 certification programme.

A.3 Rating Requirements

These can be found within CTI STD 201 RS.

A.4 Certified Performance Items

These can be found within CTI STD 201 OM.

A.5 Acceptance Criteria

These can be found within CTI STD 201 OM.

Appendix B. **FORMS**

B.I. Form CT-1: GENERAL COMPANY INFORMATION

You have to fill in one company sheet and as many sheets as factories
*Cells with * are mandatory to be filled in*
Cells with X will be completed by ECC

General informations	ECC ID	X	
	Phone No.	*	
	Fax		
	General e-mail	*	
Invoicing of fees	Name	*	
	Address	*	
	Postcode	*	
	City	*	
	Country	*	
mandatory if within EU	TVA No.	*	
Address for ECC website	Public name		
if different from invoicing adress	Public address		
	Postcode		
	City		
	Country		
use format +33 1 49 96 69 81	Phone No.	*	
use format +33 1 49 96 45 11	Fax		
if different from general e-mail	Email	*	
ISO certifications			
e.g. ISO 9001, ISO 14001	ISO Type		
use format 2010/12/26	Validity date		
attach relevant pdf	File name		
Main contact	Position		
	Civility	*	
	Firstname	*	
	Lastname	*	
if different from invoicing adress	Address		
	Postcode		
	City		
	Country		
Second contact	Position		
	Civility		
	Firstname		
	Lastname		
if different from invoicing adress	Address		
	Postcode		
	City		
	Country		
Third contact	Position		
	Civility		
	Firstname		
	Lastname		
if different from invoicing adress	Address		
	Postcode		
	City		
	Country		
Trade names	Trade name 1	*	
	Website 1	*	
	Website 2		
	Website 3		
	Trade name 2		
	Website 1		
	Website 2		
	Website 3		
	Trade name 3		
	Website 1		
	Website 2		
you can add lines if necessary	Website 3		

B.II. Form CT-2: Authorization Form

We undersigned:

- Applicant or Participant to the Certification Programme for Cooling Towers within Eurovent Certita Certification

or/and

- Participating Company to the CTI Certification Program

Authorize the transfer of data of record and field test reports for the product series & sub-group ranges (lines) noted on the form below (including the CTI validation number) when applicable:

- transfer and filing from Eurovent Certita Certification to CTI
- transfer and filing from CTI to Eurovent Certita Certification

for use with your application and maintenance of Eurovent Certita Certification and CTI (if required) certification.

Product Series / Sub-group Model Line Designation	CTI Validation Number	PRODUCTION FACTORY				
		1	2	3	4	5

Factory

	Address	Country
1		
2		
3		
4		
5		

OEM Company Name:

_____

Brand Name (BN) Company Name (if applicable):

_____

Authorized Signature:

_____

Title of Signer:

_____

(To be filled in and signed in 3 original copies)

B.III. Form CT-3: Selection Software Update Record Sheet

Company Name (Logo)

XXXXX Software Name
Cooling Tower Software Update
Record Sheet

Prepared By:

Date: Click here to enter a date.

Software Revision	Date	Brief Description of update	Effect on software ECC Certified performance (Y/N)
		For instance: Logo update	Yes ☐ No ☐
		Prices	Yes ☐ No ☐
		Dll...	Yes ☐ No ☐
			Yes ☐ No ☐

Signature:

Date: _____

B.IV. Form CT-4: Factory declaration

Information to be provided for each of the manufacturing plants which produce the product series / sub-group ranges (lines) to be certified in Europe.

You have to fill in one company sheet and as many sheets as factories
*Cells with * are mandatory to be filled in*
Cells with X will be completed by ECC

General informations	ECC ID	X	
	Company type	X	Factory
	Parent	X	
	Phone No.	*	
	Fax		
	General e-mail	*	
Invoicing of audits	Name	*	
if different from company adress	Address	*	
	Postcode	*	
	City	*	
	Country	*	
mandatory if within EU	TVA No.	*	
ISO certifications			
e.g. ISO 9001, ISO 14001	ISO Type		
use format 2010/12/26	Validity date		
attach relevant pdf	File name		
Main factory contact	Position		
if different from main contact	Civility	*	
	Firstname	*	
	Lastname	*	
if different from invoicing adress	Address		
	Postcode		
	City		
	Country		
Second factory contact	Position		
	Civility		
	Firstname		
	Lastname		
if different from invoicing adress	Address		
	Postcode		
	City		
	Country		
Third factory contact	Position		
	Civility		
	Firstname		
	Lastname		
if different from invoicing adress	Address		
	Postcode		
	City		
	Country		
Ranges	Range 01	*	
add here the names of the ranges	Range 02		
*produced in **this** factory*	Range 03		
	Range 04		
	Range 05		
	Range 06		
	Range 07		
	Range 08		
	Range 09		
you can add lines if necessary	Range 10		

B.V. Form CT-5: Technical Datasheet (Data of Record)

Information to be provided for each product series / sub-group range (line) manufactured in Europe.

General(GEN)	Manufacturer
	Product Line
	Submission Revision Date
	Product Type
	Draft Type
	Flow Type
	Fan Type
	Model Number
	Nominal Water Flow Rate
	Nominal Temperature Conditions
	Number of Cells
	Number of Fans per Cell
	Number of Fan Motors Per Cell
	Total Nameplate Fan Motor Power per Model
	Total Rated Fan Motor Power per Model
	Number of Pumps per Cell
	Total Nameplate Pump Power per Model
	Total Rated Pump Power per Model
	Flowrate of Recirculating Water
	Static Pressure at Recirculating Water Inlet
	Overall Height of Unit
Axial Fans	Fan Diameter
	Standard Fan Center Hub or Seal Disk Diameter
	Fan stack Height
	Fan Stack Inlet Area
	Fan Stack Throat Area
	Fan Stack Discharge Area
	Fan Blade Pitch Adjustement
Centrifugal Fans	Fan Wheel Outside Diameter
	Fan Wheel Width
	Fan Wheel Housing Width Dimension "A"
	Fan Wheel Housing Outside Dimension "B"
	Fan Wheel Housing Inside Dimension "C"
	Fan Wheel Housing Discharge Area
Elim	Eliminator Type
	Eliminator Gross Area per Cell
Air Inlet Louvers	Louver type
	Louver Gross Face Area per cell
	No. Air Inlet Faces per cell
	Air Inlet Height
	Louver Spacing
Wet Heat Transfer Media	Fill Type
	Fill Height
	Counterflow No. of Fill Layers
	Crossflow Air travel
	Internal Cell Lengh
	Internal Cell Width
	Fill Total Gross Face Area per Cell
	Film Fill No. of Sheets over Cell Width
	Film Fill No. of Sheets over Cell Length
	No. Splash Bars in Cross Section
	Splash Bars Pattern
	Splash Deck No. of layers
Heat Exchanger	Heat Exchanger Type
	Number of Heat Exchangers per Cell
	Heat Exchanger Total Number of Plates
	Heat Exchanger Number of plates type A
	Heat Exchanger Number of plates type B
	Heat Exchanger Number of plates type C
	Heat Exchanger Plate Height
	Heat Exchanger Plate Width
	Heat Exchanger Plate Depth Inside
	Heat Exchanger Number of Passes
	Heat Exchanger Number of Rows or Passes
	Heat Exchanger Number of Tubes or Passes
	Heat Exchanger Tube Diameter
	Heat Exchanger Width
	Heat Exchanger Length
	Heat Exchanger Surface Area
	Heat Exchanger Number of Inlet Nozzles
	Heat Exchanger Inlet Nozzle Size
	Heat Exchanger Number of Outlet Nozzles
	Heat Exchanger Outlet Nozzle Size
	Heat Exchanger Gross Free Area
	Heat Exchanger Process Fluid
	Heat Exchanger Pressure Drop
Water Distribution	Water Distribution Type
	No. Inlet Connections per Cell
	No. Nozzles or Orifices per Cell
	Underside of Nozzle Height above Media or Heat Exchanger
Geometric Data	Ratio of Prop Fan Stack Throat Area to Wet Heat Transfer Media Gross Face Area
	Ratio of Centrifugal Fan Wheel Housing Discharge Area to Wet Heat Transfer Media Gross Face Area
	Ratio of Air Inlet Gross Face Area to the Total Gross Face Area of the Heat Transfer Media
	Ratio of Fan Coverage Area to Eliminator/Louver Area when projecting a circle at 45o from fan inlet opening onto the Eliminator/Louver Face and neglecting all portions of the projection which fall beyond the cell boundaries (See Appendix F, Fig A, B, and C)
	Ratio of Fan Plenum Width to Fan Plenum Length (See Appendix F, Fig D)
Attached Files	Name of ZIP data file attached to this model

B.VI. Form CT-6: Declaration List by Brand Name Manufacturer (BNM) - Eurovent Certita Certification use only, for Claris

GENERIC	Product Number	Unique Eurovent Certita Certification number in its own database. This will be created during first import and will not change anymore
	Master product number	In case a Applicant/Participant presents, as Distributor (or Brand Name) a product which is manufactured and certified by another Participant, here should be inserted the Product number of the master product
	Tested On	Date of last test
	Rerated on	Date of last rerate (degradation of data after test)
	Created on	Date of creation of the product
	Last update on	Date of last modification of the product
	Status	Status of the product [New, DVP, Deleted, Certified, Obsolete]
	Participant Name	Name of the holder of the contract
	Product Name	Name of the product. This has to be unique
	Trade Name	Also called "Brand"
	Type of product	CT Open or Closed circuit
	Range Name	Series / sub-group range name (line)
	BMG	Basic Model Group. If several products have similar properties, they can be grouped in the same BMG

Appendix C. **CAMPAIGN SCHEDULE**

C.I. – Application FOR MANUFACTURE NOT ALREADY CTI certified

	ECC Registration to then include CTI			
Process Description	**Item No.**	**First Year**	**Item No.**	**Following Years**
ECC requests CT-2 Authorization & CT-3 Selection Software Update Record FORM Updates		n/a	**110**	**31/11/n-1**
Participant sends confirmation of CT-2 & CT-3		n/a		**31/12/n-1**
Manufacturer sends License Registration to ECC (introduction of Programme	030	28th Jan 2011 (or ndate)		n/a
CT-2 & CT-3 & Data of Record Declaration (DOR) sent to ECC	050	+2 months		
ECC inputs data into ECC Database and informs CTI administration co-ordinator		+2 weeks	120	+2 weeks
ECC via CTI administrator undertakes Data analysis & selection for test, ECC Client Manager provides Project no. for test	051	+2 months	051	+2 months
CTI administrator sends request for required unit to be tested (*)	052	+2 weeks		+2 weeks
CTI Test agency conducts unit testing in; Factory, lab or on site		June / July / August +n years	052	June / July / August +n years
CTI administrator reviews test results & provides ECC with test report	053 / 054	+2 weeks	053	+2 weeks
ECC reviews test report & sends test report to manufacturer	060	+2 weeks	060	+2 weeks
If test is a failure, then manufacturer has possible second test or re-rates the line as per CTI 201 std.				
If a second test, then CTI administrator selects & arranges second test		+2 weeks		+2 weeks
CTI licensed test agency conducts test in; factory, lab or on site		June / July / August +n years		June / July / August +n years
CTI administrator reviews test result & sends test result to ECC		+2 weeks		+2 weeks
ECC reviews test report & sends test report to manufacturer		+2 weeks		+2 weeks
ECC auditor undertakes manufacturing facility audit(s)*	070	During year +n year	070	During year +n year
Audit Report provided to ECC & issued to manufacturer	071	+1 week	071	+1 week
Audit Report + if any non-conformities provided to ECC, If Critical NC then must be updated within 3 months, otherwise non-critical will be checked during next audit				
ECC certification committee to approve certification of manufacturer	080	Meets end of Oct +n year	080	Meets end of Oct +n year
ECC to update website		+1 week		+1 week
ECC send certification diploma	090	+ 1 week	090	+1 week
Manufacturer sends notification to ECC to be CTI certified	095	+1 week	095	+1 week
ECC sends conformity report to CTI administration	096	+1 week	096	+1 week
CTI invoice manufacturer for Entrance / Registration Fee	097	+1 week	097	+1 week
CTI receive registration payment from manufacturer		?		?
CTI deliver diploma & update website once payment received	099	+1 week	099	+1 week

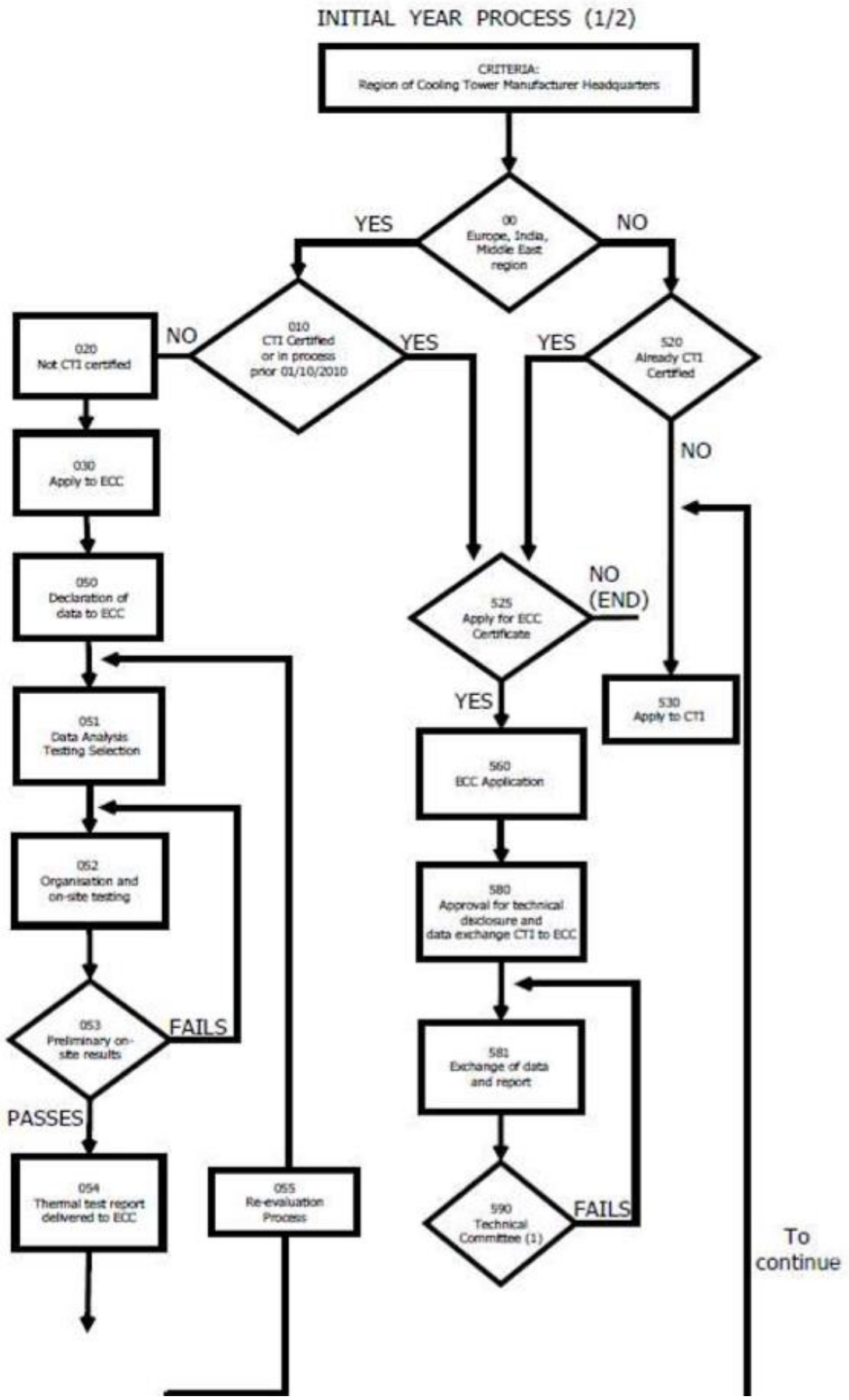
Note: Should the participant include a range using the ECC fast track process then at least a successful Thermal Performance test must have been conducted for that range. Should the range not fulfil the 8-month audit requirement, then it shall be considered as a very low volume and a Company declaration letter shall be required prior to the 8-month deadline as outline in this OM. Should this very low volume situation continue the participant shall provide ECC a declaration by 1st Dec, n year, if this continues for n+2 years then the participant provide ECC a declaration letter together with an explanation why the product shall maintain its certification status, thereafter for each consecutive year the participant shall provide both the declaration letter supported with the explanation why the certification shall be maintained. ***NOTE: SHALL the Data of Record (DOR) be updated by the participant at any time, then immediate submission shall be provided to the CTI Administrator, who in turn will provide it to the ECC Client Manager.***

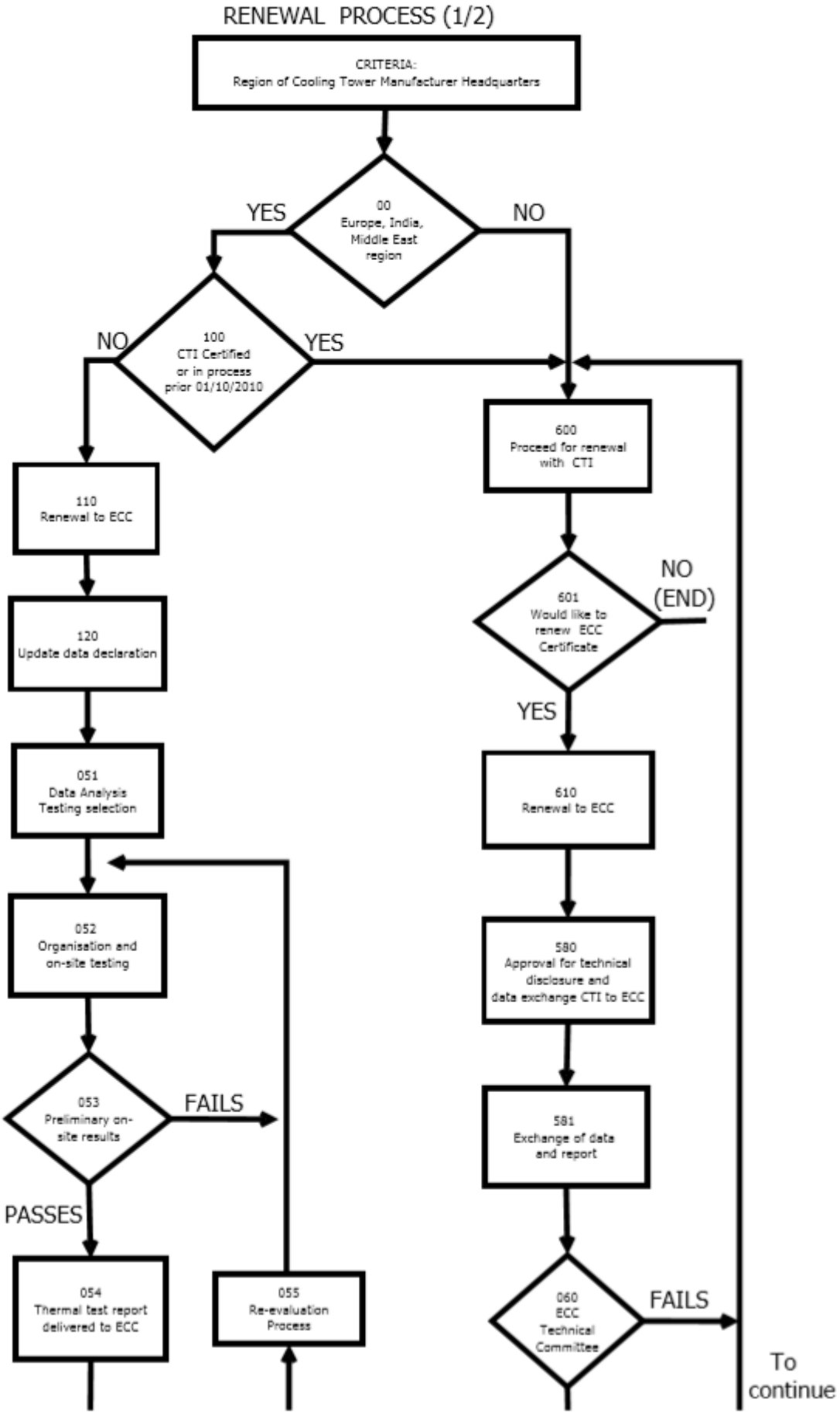
C.II. COOLING TOWERS – APPLICATION SCHEDULE for Manufacturer Already CTI Certified

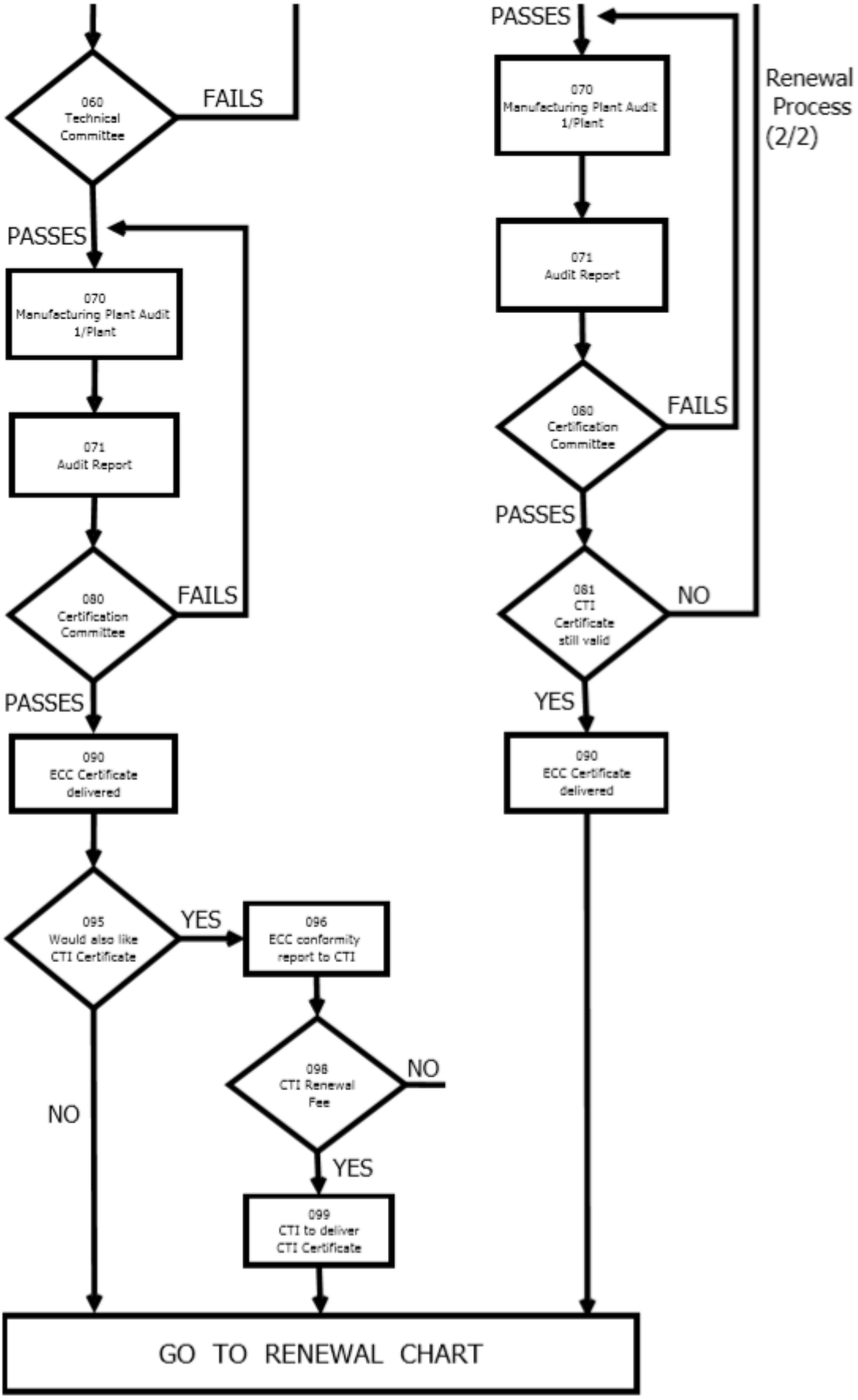
	CTI Certified to include ECC	
Process Description (CTI Certified to include ECC)	**Item No.**	**N given year**
CTI certified manufacturer applies for ECC certification	525	**n date**
ECC request data from CTI	560	+ 1 week
Approval for technical disclosure & Data exchange ECC & CTI	580	+ 1 week
Exchange of data & reports from CTI to ECC	581	+ 1 week
ECC Technical Department reviews CTI product status	590	+ 2 week
ECC auditor undertakes manufacturing facility visits(*)	070	**Between April to Oct +n year**
Audit Report provided to ECC	071	+ 1 week
ECC certification committee to approve Certificication of manufacturer & checks CTI still valid	080	**First Year 2011 will meet Oct**, thereafter meets end of each month
ECC to update website		+ 1 week
ECC send certification diploma	090	+ 1 week

Note: Should the participant include a range using the ECC fast track process then at least a successful Thermal Performance test from CTI must have been conducted for that range. Should the range not fulfil the 8-month audit requirement, then it shall be considered as a very low volume and a Company declaration letter shall be required prior to the 8-month deadline as outline in this OM. Should this very low volume situation continue the participant shall provide ECC a declaration by 1st Dec, n year, if this continues for n+2 years then the participant provide ECC a declaration letter together with an explanation why the product shall maintain its certification status, thereafter for each consecutive year the participant shall provide both the declaration letter supported with the explanation why the certification shall be maintained.

Appendix D. **CERTIFICATION MAP PROCESS**







(1) Fast Track route: Technical Committee makes recommendation to Certification Committee to provide ECC certification diploma for 8-month period.
(2) Manufacturing Plant Audit 1/Plant to be undertaken within 8 months of the ECC certification diploma provided, should no unit be available for an audit inside this period the participant shall be required to provide ECC with a very low volume declaration.
(3) Certification Committee review to make sure factory audit has been conducted within the 8 months, or the participant has provided prior to this deadline a very low volume declaration.
(4) ECC certification diploma is updated and delivered to participant.
(5) Fast Track Route: Once ECC have provided a certification diploma then participant has option to enter for CTI certification.

Note: Should the participant include a range using the ECC fast track process then at least a successful Thermal Performance test must have been conducted for that range. Should the range not fulfil the 8-month audit requirement, then it shall be considered as a very low volume and a Company declaration letter shall be required prior to the 8-month deadline as outlined in this TCR. Should this very low volume situation continue the participant shall provide ECC a declaration by 1st Dec, n year, if this continues for n+2years then the participant shall provide ECC a declaration letter together with an explanation why the product shall maintain its certification status, thereafter for each consecutive year the participant shall provide both the declaration letter supported with the explanation why the certification shall be maintained.

Performances on line
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