EUROVENT



What is EUROVENT?

EUROVENT ASSOCIATION

- Keep members informed of relevant legislation
- National Trade Associations for each country
- Development of product certification programs

EUROVENT CERTIFICATION COMPANY (E.C.C.)

- Independent from Eurovent Association
- Certification of cooling equipment/components



What is CTI?

COOLING TECHNOLOGY INSTITUTE

Maintain and expand a broad-base membership of individuals and organizations interested in evaporative heat transfer equipment.

Mission Promote environmentally responsible Evaporative Heat Transfer Systems



Eurovent Certification Company (ECC)— Cooling Technology Institute (CTI) Partnership

ECC – CTI Memorandum of Understanding Mutual recognition Eurovent – CTI

"CTI and ECC endeavor to work together in the area of cooling tower certification in an effort to advance the certification programs of both groups, be it therefore resolved, that CTI and ECC pledge to work Cooperatively on all matter of mutual interest In the area of coolint tower certification"

- -Europe
- -Middle East
- -India

CONTRACT BETWEEN COOLING TECHNOLOGY INSTITUTE AND EUROVENT CERTIFICATION COMPANY

Whereas Cooling Technology Institute (CTI) and Eurovent Certification Company (ECC) endeavor to work together in the area of cooling tower certification in an effort to advance the certification programs of both groups, be it therefore resolved, that CTI and ECC pledge to work cooperatively on all matters of mutual interest in the area of cooling tower certification. Further, CTI and ECC pledge to resolve any reasonable differences in the most professional and timely manner possible.

This contract is entered into this day, day, month, year, by and between the CTI whose address is 2611 FM1960 West, Suite A-101, Houston, Texas 77068, United States of America and ECC, whose registered address is La Kenweversstraat 21, 1050 Brussels, Belgium and whose office address is 62 Boulevard de Sebastopol, 75003 Paris, France

Once significant interest is indicated by the above companies requesting the cooling tower certification program, the program will commence per the agreement indicated below.

In consideration of the promises of the parties contained in this contract, the parties agree as follows:

- CTI and ECC each agrees, under the conditions specified herein, to cooperate with the certification of the other party with respect to covered product.
- For the purposes of this Agreement:

 (a) Covered product means all products covered for certification in ECC publication OM-4-2008, which is a subset of the products covered in CTI STD-201
- 3. Both CTI and ECC desire to affiliate per this contract. The ECC cooling tower certification program involves certification of published ratings on covered products by CTI. ECC will, in addition to the certification of published ratings using the CTI program, institute a complementary program to validate manufacturing according to the CTI official product data of record in the manufacturing facilities that may produce product for delivery or sale in Europe 1.

Many benefits will be derived by all parties including the following:

• Identical standards for cooling tower certification will be in use throughout the world:

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Launch of the Eurovent certification programmes

December 2010

Launch of the Open Cooling Tower Certification

May 2012

Launch of the Closed Circuit Cooler Certification





ECC-CTI Cooling Tower Certification participation

Initial Team:

Evapco Europe
SPX Cooling Technologies
Jacir Air-Traitement
Niba Water Cooling Towers Industry Co.
Baltimore Aircoil International
E.W. Gohl GmbH

Recently additional member

Mita





General Purpose

- -Encourage honest competition
- -Assure correctly rated equipment on the market
 - ⇒Separate and specific certification programmes for each product type
 - ⇒Product performance tests through an independent thrid-party
 - ⇒Application and participation open to all manufacturers

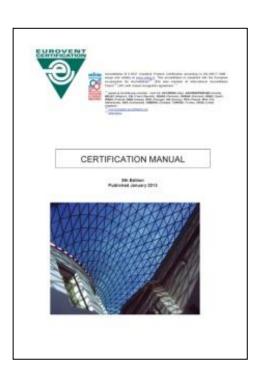




Important Documents

Eurovent Certification Manual (CM):

"Make each certification programme sufficiently effective and reliable so the market recognize ECC certified equipment."







CM defines that each certification programme has

Rating Standards (RS)

Definitions and specifications for testing and rating



Operational Manual (OM)

Prescribe rules and procedures for the ECC certification programme



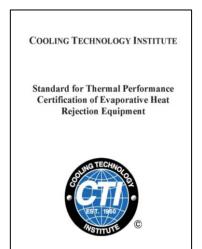




ECC Rating Standard (RS)

⇒ Reference to CTI STD-201

⇒ CTI STD-201 will be used for thermal performance testing





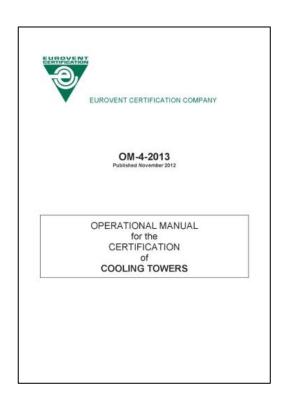




ECC Operational Manual (OM)

- Purpose
- Scope
- Basic Outline of the Programme
- Operation of the Programme
- Promotion of the Programme
- Forms
- ECC Mark
- Cooling towers Application Schedule
- Audit Report
- Certification Process Map







Important steps in OM:

- I. Thermal Performance Testing
- Manufacturers own lab
- Independent test agency
 - Lab
 - On site
- CTI approved test equipment





II. Factory Audits

- Verify the equipment is built conform as per registered data
- Identify issues which may arise with regard to differences in regional sourcing of components
- \Rightarrow Audit agency will send audit report to ECC.
 - Compliance
 - Non-Compliance
 - C Critical non-compliance
 - I Important non-compliance
 - S Secondare non-compliance





Challenging Procedures

Participant X can challenge certified data or software of another participant Y

-Simplified Challenging Procedure

-Complete Challenging Procedure by independent laboratory





Certification Process

Certification process

- Application
 - submit all relevant documentation for each applied product range
- Qualification
 - after analysis, ECC will select type of unit for test
 - equipment test conducted by an independent agency, selected by ECC
 - => Test rapport send to ECC
 - => ECC transfer test results to the manufacturer

When all results are conform with the relevant Rating Standard, certification is granted.

-Repetition

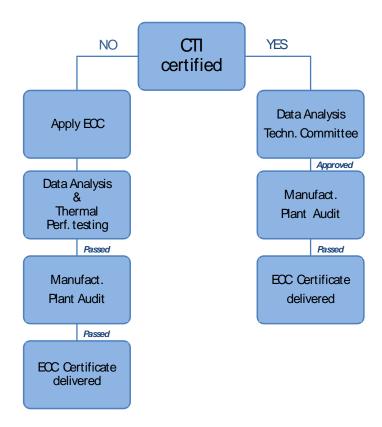
thermal performance conformity is verified on an annual base by an independent testing agency.





Certification Process

Initial Certification process

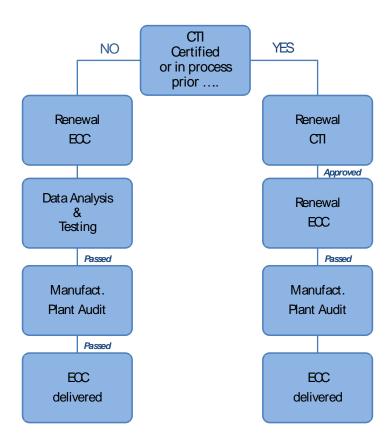






Certification Process

Renewal Certification process







Value Ad

- -Honest and fair competition
- -Correctly rated equipment on the market
- -Enables accurate energy comparison calculations
- -Enforceable, specifiable and available for all manufacturers
- -Energy consumption of the system. An underrated cooling tower will return the chiller to operate at a higher condensing temperature. A high condensing temperature results in a higher power consumption the chiller.





Success Story





Customized Area



