### Air-Cooled Chillers (ACCL) and Water-Cooled Chillers (WCCL) Certification Program Update

### 2018



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Air-Cooled Water Chilling Packages AHRI Standards 550/590 and 551/591

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Water-Cooled Water Chilling and Heat Pump Water-Heating Packages AHRI Standards 550/590 and 551/591

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Air-Cooled Water Chilling Packages EN Standards 14511 and 14825

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Water-Cooled Water Chilling and Heat Pump Water-Heating Packages EN Standards 14511 and 14825



### **Updated Sections of the ACCL and WCCL OMs (2018)**

### Effective January 1, 2018

- Removal of Unit Listing Types (Packaged and Configurable)
- Scope Revision: Addition of EN Standards 14511 and 14825
- Testing Revision: Allow participants in the laboratory during inhouse testing.
- Testing Timeline: Set specific milestones for testing. coordination.
- 2nd Sample Requirement: Similar published performance (+/-10% capacity and 0 to 5% improved full-load efficiency and IPLV)
- Test Stand Directory: Public list of all approved test stands with and a six year maximum Test Stand capacity check.
- New Product Introduction Directory: Defined fields



### **Removal of Unit Listing Types (Packaged and Configurable)**

- Why: Removed complexity in scope determination.
- What: Deleted Section 1.2.5 and updated Note a of Table 1 to read

Notes:

a. Refrigeration Capacity refers to the net refrigeration capacity of units rated at application full-load operating conditions provided these conditions are within the scope of AHRI Standard 550/590 (I-P).

Effective July 1, 2018: Updates to requirements for Primary Catalog
/ Selection Rating Application Output Reports, including scope
determination based on Table 1, Note a.



### Scope Revision: Addition of EN Standards 14511 and 14825

- > Why: Allow AHRI Certification to EN Standards
- What: Included <u>optional</u> Certification to EN Standards 14511 and 14825.
  - No additional testing: Test to one standard, certify to all.
  - All units certified to EN Standards shall also be certified to AHRI Standards.
  - EN Certification Statement (Section 3.7.6.4) required for all units certified to EN Standards.
  - AHRI Directory Field added showing certification to EN Standards.
  - 2<sup>nd</sup> Sample tests use the same standard as the 1<sup>st</sup> Sample.



# Testing Revision: Allow participants in the laboratory during in-house testing.

> Why: Harmonize requirements for in-house and witness testing

### > What:

- Participants may operate their unit in the 3<sup>rd</sup> party lab.

In accordance with Section C6.3 of the Standard, a Participant may be allowed in the Laboratory for the duration of the test to assist in the setup of the sample and operation of each test point using the tools and diagnostic equipment typically available in the field for this purpose. A Participant may instruct the Laboratory to operate the equipment in accordance with instructions provided per Section 3.6 for a Participant-specified number of test setup validation hours, not to exceed 4 hours of run time at stable Participant defined conditions, prior to testing.

Prior to testing Participants are required to provide sufficient

#### information to operate the selected unit at each test condition.

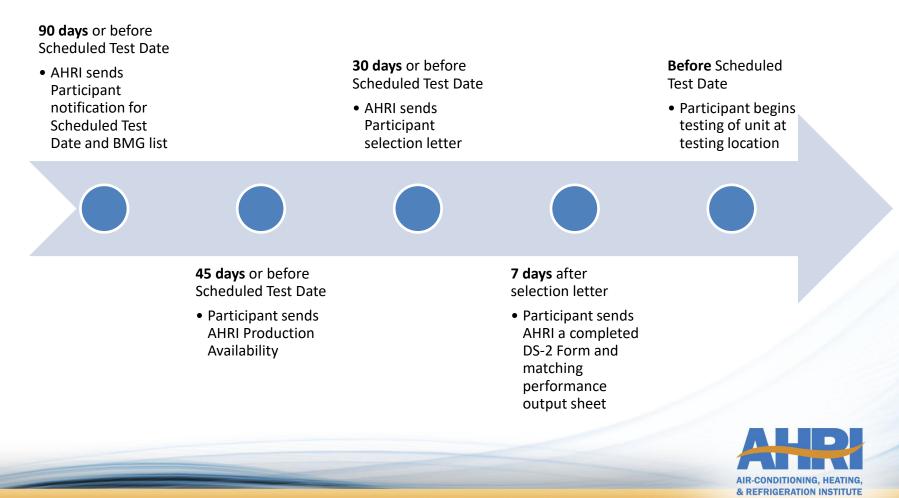
On or before the scheduled test date, the selected samples shall be shipped to the Laboratory or be available for Witness Testing at the AHRI approved Test Stand with refrigerant charging instructions as well as instructions that provide sufficient information to operate the selected unit at each test condition (i.e. manual operation of compressors and fans, etc.). If additional information is required during testing, it shall be approved by AHRI prior to its use.



### **Testing Timeline: Specific milestones for testing coordination**

> Why: Allow all testing to be completed each year.

> What: Set Specific milestones for each test (Section 3.6).



### **2nd Sample Requirement**

- Why: Align 2<sup>nd</sup> Sample Requirements with other AHRI Programs
- > What: 2<sup>nd</sup> Sample is required to be
  - Similar published performance (+/- 10% capacity and 0 to 5% improved full-load efficiency and IPLV.IP/IPLV.SI or NPLV.IP/NPLV.SI)
  - Within the same BMG as the 1<sup>st</sup> Sample.



### **Test Stand Directory**

> Why: Removed complexity in scope determination.

- > What: Public list of all approved test stands.
  - Maximum Test Stand capacity is checked every 6 years.

Table 4. Publication of Approved Test Stands in the Test Stand Directory				
Information	Public <sup>a</sup>	Private <sup>b</sup>		
Test Stand Reference Number	X			
Manufacturer	Х			
Test Stand Designation	X			
City and Country of Location	Х			
Maximum AHRI Approved Capacity (tons or kW)	X			
Last Capacity Used to Test (tons or kW)		X		
Facility Address		X		
Facility Contact (name, phone number, email)		X		
AHRI Inspection Date		X		
Approval Expiration Date		X		
Date Provided Testing to Another Participant		X		



### **New Product Introduction Directory: Defined fields**

Table 3. Publication of Ratings in the Certified Products and New Product Introduction Directories					
Information	Certified Product Directory		New Product Introduction Directory		
	Publica	Private <sup>b</sup>	Public <sup>a</sup>	Private <sup>b</sup>	
AHRI Certified Reference Number <sup>d</sup>	X				
Model Status	X				
Manufacturer	X		Х		
Trade/Brand Name	X		Х		
Model Designation <sup>e</sup>	X		Х		
Refrigerant Used per ASHRAE 34 <sup>d</sup>	X		Х		
Compressor Model Series Information	X		Х		
Compressor Type <sup>d</sup> (Reciprocating, Scroll, Centrifugal or Screw)	X		Х		
Primary Catalog or Selection Rating Application Name	X				
Primary Catalog or Selection Rating Application Version	X				
Hertz <sup>d</sup> (50 or 60 Hz)	Х		Х		
Country of Origin <sup>d</sup>	X		Х		
Manufacturing Location, City <sup>d</sup>		Х		Х	
Application Type <sup>d</sup> (Heating, Cooling, or Heating and Cooling)	X		Х		
Nominal Cooling Capacity Range <sup>c</sup> (kW or tons) – Low and High	X		Х		
Nominal Heating Capacity Range <sup>c</sup> (kW or kBtu/h) – Low and High	Х		Х		
Certified to EN 14511 and EN 14825 <sup>d</sup> (Yes or No)	X				
Variable Speed Compressor Control Available (Yes or No) <sup>d</sup>		Х		Х	
Basic Model Group Number <sup>d</sup>		Х			
New Product Introduction Approval Date			Х		