



Project Name and Address	Authority Having Jurisdiction
Name: Project Name	Enforcement Agency: Agency
Address: Project Address	Permit Number: Permit Number
City, Zip: City, Zip Code	Permit Application Date: Date

Building: Enter Value	Floor: Enter Value	Room: Enter Value	Control/tag: Value
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<input type="checkbox"/> Construction inspection and functional testing comply	Date Submitted to AHJ: Date
<input type="checkbox"/> Does not comply	

<b>Intent:</b>	This acceptance test is intended for Thermal Energy Storage (TES) Systems that are used in conjunction with chilled water air conditioning systems as limited under Eligibility Criteria in Table A-2. Submit one Certificate of Acceptance for each system that must demonstrate compliance. References: §120.5(a)15, §160.3(d)1N, and NA7.5.14.
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### Table A-1: Construction Inspection

Prior to functional testing, verify access to the following documentation

Step	Entry	Item	Code Reference
1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Designs, plans, schematics, and schedules as approved by the authority have jurisdiction.	§10-103(a)
2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Using a California Energy Commission approved compliance software; software inputs and output results for the TES system as approved by the authority having jurisdiction.	NA7.5.14.1
3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Manufacturer specifications or tear sheets for the installed TES system as available.	NA7.5.14.1

### Table A-2: Construction Inspection

Verify system eligibility (check one)

Step	Entry	Item	Code Reference
1	<input type="checkbox"/>	Chilled Water Storage	NA7.5.14.1(a)
2	<input type="checkbox"/>	Ice-on-Coil Internal Melt	NA7.5.14.1(b)
3	<input type="checkbox"/>	Ice-on-Coil External Melt	NA7.5.14.1(c)
4	<input type="checkbox"/>	Ice Harvester	NA7.5.14.1(d)
5	<input type="checkbox"/>	Brine	NA7.5.14.1(e)
6	<input type="checkbox"/>	Ice-Slurry	NA7.5.14.1(f)
7	<input type="checkbox"/>	Eutectic Salt	NA7.5.14.1(g)
8	<input type="checkbox"/>	Clathrate Hydrate Slurry (CHS)	NA7.5.14.1(h)
9	<input type="checkbox"/>	Cryogenic	NA7.5.14.1(i)
10	<input type="checkbox"/>	Encapsulated (e.g., Ice Balls)	NA7.5.14.1(j)

**Table A-3: Construction Inspection**

Compare the installed unit to the documentation from Table A-1, Step 2 (Check all of the following)

Step	Entry	Item	Code Reference
1	No Entry	TES System Chiller	NA7.5.14.1
1.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Brand and Model	NA7.5.14.1(k)
1.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Type (Centrifugal, Reciprocating, Other)	NA7.5.14.1(l)
1.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Heat Rejection Type (Air, Water, Other)	NA7.5.14.1(m)
1.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Charge Mode Capacity (Tons)	NA7.5.14.1(n)
1.5	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Discharge Mode Capacity (Tons)	NA7.5.14.1(o)
1.6	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Discharge Mode Efficiency (kW/Ton or EER)	NA7.5.14.1(p)
1.7	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Charge Mode Efficiency (kW/Ton or EER)	NA7.5.14.1(q)
1.8	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Fluid Type and Percentage	NA7.5.14.1(r)
2	No Entry	TES System Storage	NA7.5.14.1
2.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Brand and Model	NA7.5.14.1(s)
2.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Number of Tanks	NA7.5.14.1(t)
2.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Storage Capacity per Tank (ton-hours)	NA7.5.14.1(u)
2.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Storage Rate (tons)	NA7.5.14.1(v)
2.5	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Minimum Charging Temperature	NA7.5.14.1(w)
2.6	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Discharge Rate (tons)	NA7.5.14.1(x)
3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Indicate that the Construction Inspection complies with <b>ALL</b> requirements.	NA

**Table B: Functional Testing**

Step	Entry	Functional Test	Code Reference
1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Chiller(s) start-up procedure has been completed.	NA7.5.14.2 (Part 1)(a)
2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	System fluid test and balance has been completed.	NA7.5.14.2 (Part 1)(b)
3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Air separation and purge has been completed.	NA7.5.14.2 (Part 1)(c)



Step	Entry	Functional Test	Code Reference
4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Fluid (e.g. glycol has been verified at the concentration and type indicated on the design documents.	NA7.5.14.2 (Part 1)(d)
5	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	The TES system has been fully charged at least once and the charge duration noted.	NA7.5.14.2 (Part 1)(e)
6	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	The system has been partially discharged at least once and the discharge duration noted.	NA7.5.14.2 (Part 1)(f)
7	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	The system is in a partial charge state in preparation for step 2 tests.	NA7.5.14.2 (Part 1)(g)
8	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	The schedule of operation has been activated as designed.	NA7.5.14.2 (Part 1)(h)
9	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Mode documentation describes the state of system components in each mode of operation.	NA7.5.14.2 (Part 1)(i)
10	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the TES system and the chilled water plant is controlled and monitored by an energy management system (EMS).	NA7.5.14.2 (Part 2)(a)
11	<input type="checkbox"/> M <input type="checkbox"/> E	Indicate one of the following methods of simulation that will be used during the test. Manual selection (M) or use of an EMS by inputting the schedule as indicated by the designer or manufacturer (E).	NA7.5.14.2 (Part 2)(b)
12	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Storage/charge mode. Verify that TES system stores energy.	NA7.5.14.2 (Part 2)(c)
13	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	End of charge signal. Simulate a full storage charge by changing the (manufacturer recommended) thermal storage end of charge output sensor to the EMS. Verify that the storage charging has stopped.	NA7.5.14.2 (Part 2)(d)
14	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Discharge mode. Generate a call for cooling. Verify that the storage starts discharging with the compressors off. Return to the off/secured mode.	NA7.5.14.2 (Part 2)(e)
15	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Mechanical cooling only mode. Generate a call for cooling. Verify that the storage does not discharge and the cooling load is met by the compressor only. Return to the off/secure mode.	NA7.5.14.2 (Part 2)(f)
16	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Discharge and mechanical cooling mode. Generate a call for cooling. Verify that the TES system discharges with the compressor sharing the load.	NA7.5.14.2 (Part 2)(g)
17	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Off/storage-secured mode. Verify that the storage does not discharge and all compressors are off, regardless of the presence of calls for cooling.	NA7.5.14.2 (Part 2)(h)
18	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Charge plus cool mode. If provisions for this mode have been made by the system designer, then verify that the tank(s) can be charged while serving an active cooling load. Else verify that the energy storage is disallowed or discontinued while an active cooling load is present.	NA7.5.14.2 (Part 2)(i)



Declaration Statement	Signatory
<p><b>Document Author</b> I assert that this Certificate of Acceptance documentation is accurate and complete.</p>	<p>Name Company Name Author Signature Date Signed</p>
<p><b>Field Technician</b> I certify the following under penalty of perjury, under the laws of the State of California: The information provided on this Certificate of Acceptance is true and correct. I am the person who performed the acceptance verification reported on this Certificate of Acceptance (Field Technician). The construction or installation identified on this Certificate of Acceptance complies with the applicable acceptance requirements indicated in the plans and specifications approved by the enforcement agency and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7. I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and signed by the responsible builder/installer and has been posted or made available with the building permit(s) issued for the building.</p>	<p>Name Company Name ATT No.: ATT Cert. No. Title Phone Signature Date Signed</p>
<p><b>Responsible Person</b> I assert the following under penalty of perjury, under the laws of the State of California: I am the Field Technician, or the Field Technician is acting on my behalf as my employee or my agent and I have reviewed the information provided on this Certificate of Acceptance. I am eligible under Division 3 of the Business and Professions Code in the applicable classification to accept responsibility for the system design, construction or installation of features, materials, components, or manufactured devices for the scope of work identified on this Certificate of Acceptance and attest to the declarations in this statement (responsible acceptance person). The information provided on this Certificate of Acceptance substantiates that the construction or installation identified on this Certificate of Acceptance complies with the acceptance requirements indicated in the plans and specifications approved by the enforcement agency and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7. I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and is posted or made available with the building permit(s) issued for the building. I understand that a completed, signed copy of this Certificate of Acceptance shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to ensure this requirement is accomplished. I understand that a signed copy of this Certificate of Acceptance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to ensure this requirement is accomplished.</p>	<p>Name Company Name Lic. No.: License No. Title Phone Signature Date Signed</p>