

STATE OF CALIFORNIA
VALVE LEAKAGE TEST

CEC-NRCA-MCH-08-A (Revised MM/YY)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF ACCEPTANCE		NRCA-MCH-08-A
Valve Leakage Test		(Page 1 of 2)
Project Name:	Enforcement Agency:	Permit Number:
Project Address:	City:	Zip Code:
System Name or Identification/Tag:	System Location or Area Served:	

<i>Note: Submit one Certificate of Acceptance for each system that must demonstrate compliance.</i>	Enforcement Agency Use: Checked by/Date
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Intent:	<i>Ensure that control valves serving variable flow systems are designed to withstand the pump pressure over the full range of operation.</i>
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A. Construction Inspection	
1. Instrumentation to perform test includes, but not limited to:	
a. Calibrated differential pressure gauge	
b. Pump curve submittals showing the shut-off head	
2. Installation	
a. Valve and piping arrangements were installed per the design drawings	Results Y / N

B. Functional Testing	Results
1. Pump Tag (Id):	
Step 1: Determine pump dead head pressure	
a. Close pump discharge isolation valve	Y / N
b. Measure and record the differential pump pressure	Ft. W.C. =
c. Record the shut-off head from the submittal	Ft. W.C. =
d. The measurement across the pump in step 1b is within 5% of the pump submittal in step 1c	Y / N
e. Open pump discharge isolation valve	Y / N
Step 2: Automatically close all valves on the systems being tested. -If 3-way valves are present, close off the bypass line(s).	
a. The 2 way valves automatically close	Y / N
b. Measure and record the differential pump pressure in feet of water column	Ft. W.C. =
c. The measurement across the pump in step 2b is within 5% of the measurement in step 1b	Y / N
Step 3: System returned to initial operating conditions	Y / N

C. Testing Results	PASS / FAIL	
Step 1: Pressure measurement is within 5% of submittal data for all pumps	<input type="checkbox"/>	<input type="checkbox"/>
Step 2: Pressure measurements are within 5%	<input type="checkbox"/>	<input type="checkbox"/>

D. Evaluation
<input type="checkbox"/> PASS: All Construction Inspection responses are complete and all Testing Results responses are "Pass"



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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Acceptance documentation is accurate and complete.	
Documentation Author Name:	Documentation Author Signature:
Documentation Author Company Name:	Date Signed:
Address:	ATT Certification Identification (If applicable):
City/State/Zip:	Phone:

FIELD TECHNICIAN'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California:	
<ol style="list-style-type: none"> 1. The information provided on this Certificate of Acceptance is true and correct. 2. I am the person who performed the acceptance verification reported on this Certificate of Acceptance (Field Technician). 3. 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. 4. 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. 	
Field Technician Name:	Field Technician Signature:
Field Technician Company Name:	Position with Company (Title):
Address:	ATT Certification Identification (if applicable):
City/State/Zip:	Phone: Date Signed:

RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California:	
<ol style="list-style-type: none"> 1. 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. 2. 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). 3. 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. 4. 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. 5. I will ensure 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. 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. 	
Responsible Acceptance Person Name:	Responsible Acceptance Person Signature:
Responsible Acceptance Person Company Name:	Position with Company (Title):
Address:	CSLB License:
City/State/Zip:	Phone: Date Signed:

NRCA-MCH-08-A User Instructions

This form is used to document the results for various hydronic system operating tests. The form was designed so that data from up to five hydronic systems (for example: chilled water; heating hot water; water-loop heat pump; etc.) could be recorded on one form. The form is separated into several basic sections: construction inspection; functional testing; testing calculations and results; and pass/fail evaluation. Each section consists of a combination of data entry requirements and check boxes.

Section A. Construction Inspection

This pre-test section consists of check boxes. Complete check boxes as instructed.

Section B. Functional Testing

This section consists of check boxes, data entry requirements, and yes or no questions arranged by individual test. Check each box, enter requested data, or circle the correct answer for which the specific test or line item applies.

Section C. Testing Results

This section consists of data entry requirements for all tests. Enter data as instructed.

Section D. Evaluation

Check the appropriate box as instructed.

Declaration Statements of Acceptance

This section contains fillable fields for three declaration statements: one from the Documentation Author, one from the Field Technician, and one from the Responsible Person. Each area contains a combination of check boxes and data entry requirements, including signature; date; and license number. Complete check boxes and enter data as instructed.

The Documentation Author is the person completing the form. The Field Technician is responsible for performing and documenting the results of the acceptance procedures on the Certificate of Acceptance forms. The Field Technician must sign the Certificate of Acceptance to certify that the information he or she provides on the Certificate of Acceptance is true and correct. It is important to note that the Field Technician is not required to have a contractor's, architect's or engineer's license. A Responsible Person is eligible under Division 3 of the Business and Professions code in the applicable classification to take responsibility for the scope of work specified by the Certificate of Acceptance document. The Responsible Person can also perform the field testing and verification work, and if this is the case the Responsible Person must complete and sign both the Field Technician's signature block and the Responsible Person's signature block on the Certificate of Acceptance form. The Responsible Person assumes responsibility for the acceptance testing work performed by the Field Technician agent or employee.