



MCH-10-A

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 <input type="checkbox"/> Does not comply	Date Submitted to AHJ: Date
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Intent:	Ensure that hydronic pump speed varies with building heating and cooling loads. Submit one Certificate of Acceptance for each system that must demonstrate compliance. Reference: §120.5(a)7 , §140.4(k)6Bi, §140.4(k)6Bii, §160.3(d)1G , §170.2(c)4Ivic, §170.2(c)4Ivid, and NA7.5.9.
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Table A: Construction Inspection

Step	Entry	Item	Code Reference
1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify access to the following documentation: As-built, Design Documentation, or mechanical equipment schedules as approved by the authority having jurisdiction.	N/A
2.0	No Entry	For the static pressure location, setpoint, and reset control. Check one of the following:	NA7.5.9.1(a)
2.1, or	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	For systems WITHOUT direct digital control of individual coils reporting to the central control panel, verify that the differential pressure is measured at the most remote heat exchange, or the heat exchanger requiring the greatest differential pressure. (Pass, Fail, N/A)	§140.4(k)6Bi, §170.2(c)4Ivic
2.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	For system WITH direct digital control of individual coils with a central control panel, verify that the static pressure set point is reset based on the valve requiring the most pressure, and the setpoint is no less than 80 percent open. Pressure sensors may be mounted anywhere. (Pass, Fail, N/A)	§140.4(k)6Bii, §170.2(c)4Ivid
3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the pressure sensors are either factory or field calibrated.	NA7.5.9.1(b)
4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Check "Pass" if construction inspection complies with all requirements. Check "Fail" if construction inspection does not comply with all requirements.	N/A



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Table B: Functional Testing

Step	Entry	Functional Test	Code Reference
1.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Modulate control valves to reduce water flow to 50 percent of the design flow or less, but not lower than the pump minimum flow. Complete all of Steps 1.1-1.7.	NA7.5.9.2 Step 1
1.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the pump operating speed decreases (for system with DDC to the zone level).	NA7.5.9.2 Step 1(a)
1.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	For all other systems that are not DDC, verify that the current operating setpoint has not increased.	NA7.5.9.2 Step 1(b)
1.3	Enter Value	Record the system pressure as measured at the control sensor. (ft. w.c. or psig)	NA7.5.9.2 Step 1(c)
1.4	Enter Value	Record the system pressure setpoint. (ft. w.c. or psig)	NA7.5.9.2 Step 1(c)
1.5	Enter Value	Calculate $100 \times (\text{Step 1.3} - \text{Step 1.4}) / \text{Step 1.4}$. (percent)	NA7.5.9.2 Step 1(c)
1.6	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the system pressure is within 5 percent of current operating setpoint. (Step 1.5 between -5% and +5%)	NA7.5.9.2 Step 1(c)
1.7	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the system operation stabilizes within 5 minutes after test procedures are initiated.	NA7.5.9.2 Step 1(d)
2.0	No Entry	Open control valves to increase water flow to a minimum of 90 percent design flow. Complete all of Steps 2.1-2.8.	NA7.5.9.2 Step 2
2.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the pump speed increases.	NA7.5.9.2 Step 2(e)
2.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the pumps are operating at 100 percent speed.	NA7.5.9.2 Step 2(f)
2.3	Enter Value	Record the system pressure as measured at the control sensor. (ft. w.c. or psig)	N/A
2.4	Enter Value	Record the system pressure setpoint. (ft. w.c. or psig)	N/A
2.5	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the system pressure setpoint in Step 2.4 is greater than the setpoint in Step 1.4.	NA7.5.9.2 Step 2(g)
2.6	Enter Value	Calculate: $100 \times (\text{Step 2.3} - \text{Step 2.4}) / \text{Step 2.4}$. (percent)	N/A
2.7	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the system pressure is either within ± 5 percent of current operating setpoint. (Step 2.6 is between -5% and +5%)	NA7.5.9.2 Step 2(h)
2.8	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the system operation stabilizes within 5 minutes after test procedures are initiated.	NA7.5.9.2 Step 2(h)
3.0	No Entry	Restore system to normal operating conditions.	NA7.5.9.2 Step 3



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Step	Entry	Functional Test	Code Reference
4.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Check pass if Functional Test passes on Steps 1 through 3.	N/A

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Declaration Statement	Signatory
Document Author I assert that this Certificate of Acceptance documentation is accurate and complete.	Name Company Name Author Signature Date Signed
Acceptance Test Technician 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.	Name Company Name ATT No.: ATT Cert. No. Title Phone Signature Date Signed
Responsible Person 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.	Name Company Name Lic. No.: License No. Title Phone Signature Date Signed