

Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City	Zip Code

A. DHW DISTRIBUTION SYSTEM		
1.	Distribution type	from CF-1R
2.	Select distribution type:	<<user select from list: C. Multiple Dwelling Units – Recirculation Temperature Modulation Control D. Multiple Dwelling Units – Recirculation Continuous Monitoring Systems E. Multiple Dwelling Units – Demand Recirculation F. Other

B. MANDATORY MEASURES FOR ALL CENTRAL DOMESTIC HOT WATER RECIRCULATION SYSTEMS	
1.	Outlet temperature controls: On systems that have a total capacity greater than 167,000 Btu/hr, outlets
2.	Controls for hot water distribution systems: Service hot water systems with circulating pumps or with
3.	Unfired Storage Tanks: Must be insulated with an external R-12 or combination of R-16 internal and
4.	Air release valve or vertical pump installation: (Section 110.3(c)5A).
5.	Recirculation loop backflow prevention: (Section 110.3(c)5B).
6.	Equipment for pump priming: (Section 110.3(c)5C).
7.	Pump isolation valves: (Section 110.3(c)5D).
8.	Cold water supply and recirculation loop connection to hot water storage tank: (Section 110.3(c)5E).
9.	Cold water supply backflow prevention: (Section 110.3(c)5F).
10.	System must have a dedicated return line which is insulated.(Section:120.3)
11.	All pipes are insulated per the insulation requirements of Table 120.3A(Section 120.3)
12.	Where insulation is installed there is no piping visible due to insulation voids
13.	All insulation tight against the pipe with no gaps between the pipe and insulation
14.	All elbows and tees fully insulated
The responsible person’s signature on this Certificate of Installation indicates the system identified on this Certificate has complied with all applicable requirements specified in this Table.	

C. Multiple Dwelling Units – Recirculation Temperature Modulation Control << Table C appears only if C is selected in A2>>	
1.	Controls have been installed that have the capability of modulating water temperature. These controls must the capability of using historical use patterns to adjust water temperature.
2.	Daily hot water supply temperature reduction (sum of temperature reduction by the control in each hour within a 24-hour period)shall be more than 50 degress Fahrenheit
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Multifamily Central Hot Water System Distribution

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D. Multiple Dwelling Units – Recirculation Continuous Monitoring Systems << Table C appears only if D is selected in A2>>

1.	The water heating system must have remote sensor controls with telepathy capabilities installed.
2.	Monitoring system must record no less frequently than hourly measurement of key system operation parameters, including hot water supply and return temperatures, and status of gas valve relays
3.	Current contract must be available that demonstrate the system will be monitored.

The responsible person’s signature on this Certificate of Installation indicates the system identified on this Certificate has complied with all applicable requirements specified in this Table.

E. Multiple Dwelling Units – Demand Recirculation << Table E appears only if E is selected in A2>>

1.	Verify the controlled recirculation systems operate “on-demand”, meaning that pump operation shall be initiated shortly prior to the hot water draw. The controls shall operate on the principal of shutting off the pump with a sensed rise in pipe temperature (Delta-T)
2.	If more than one loop installed each loop shall have its own pump and controls
3.	Verify that the pump, demand controls and thermo-sensor are present
4.	Systems may be activated by wired or wireless button mechanisms

The responsible person’s signature on this Certificate of Installation indicates the system identified on this Certificate has complied with all applicable requirements specified in this Table.

F. Other << Table F appears only if F is selected in A2>>

1.	Verification of measures B1 through B14
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The responsible person’s signature on this Certificate of Installation indicates the system identified on this Certificate has complied with all applicable requirements specified in this Table.

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Installation documentation is accurate and complete.

Name:	Signature:
Company:	Date:
Address:	CEA or CEPE or HERS Certification # If Applicable:
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

Project Name:	Enforcement Agency:	Permit Number:
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1. I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for construction, or an authorized representative of the person responsible for construction (responsible person).
3. I certify that the installed features, materials, components, or manufactured devices identified on this certificate (the installation) conforms to all applicable codes and regulations, and the installation is consistent with the plans and specifications approved by the enforcement agency.
4. I reviewed a copy of the Certificate of Compliance (CF1R) approved by the enforcement agency that identifies the specific requirements for the installation. I certify that the requirements detailed on the CF1R that apply to the installation have been met.
5. **I will ensure that a completed, signed copy of this Certificate of Installation 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 Installation is required to be included with the documentation the builder provides to the building owner at occupancy.**

Company Name: (Installing Subcontractor or General Contractor or Builder/Owner)		
Responsible Person's Name:		Responsible Person's Signature:
CSLB License:	Date Signed:	Position With Company (Title):

Definitions of system types

Multiple Dwelling Units – Recirculation Temperature Modulation Control: Temperature Modulation Controls adjust the temperature of the water in the central recirculation system based on the demand curve, which is based on previous draw patterns.

Multiple Dwelling Units – Recirculation Continuous Monitoring Systems: Continuous Monitoring Systems use modulation of the flow rate in the central recirculation system based on the demand curve, which is based on previous draw patterns.

Multiple Dwelling Units – Demand Recirculation: Demand recirculation primes the central recirculation line when demand is registered in a dwelling unit and the temperature in the recirculation line is below the set-point.

Other: This option applies to all other central system types. This includes central recirculation systems that use constant recirculation or systems that use temperature, timer or a combination of the two to meet hot water demand. This option is intended for use with existing buildings only.