



Inspection Guide for Solar Domestic Water Heating Systems In One- and Two-Family Dwellings Dwellings

This document is a field inspection guide for solar domestic water heating (SDWH) systems. These inspection references detail most of the issues that relate to SDWH systems during the inspection process.

All California Electrical Code (CEC), California Residential Code (CRC), California Building Code (CBC), California Mechanical Code (CMC) and California Plumbing Code (CPC) references are to the 2013 versions unless otherwise noted.

SOLAR DOMESTIC WATER HEATING SYSTEM ELIGIBILITY			
SYSTEM	Criteria		Yes
		1. Major components installed match those of certified system?	
SOLAR DOMESTIC WATER HEATING INSPECTION GUIDE			
	Guideline	Source of Guideline	Yes
ROOF	I. Roof penetrations/attachments are properly flashed	CBC Chap. 15, CRC Chap. 9	<input type="checkbox"/>
SOLAR LOOP PIPING	I. Piping must be properly supported, hung and anchored per code	CPC 313.0	<input type="checkbox"/>
	II. Solar piping properly insulated	Energy Sec. 150.0(j)	<input type="checkbox"/>
	III. Dissimilar materials isolated, as required	CPC 310.6	<input type="checkbox"/>
	IV. Penetrations through structural members as per code	CPC 312.2	<input type="checkbox"/>
	V. Penetrations through fire-resistant assemblies installed per code	CPC 1505.2	<input type="checkbox"/>
	VI. Where the collector fluid is water, two freeze protection mechanisms installed	CPC 312.6 CPC S 13.4.3(4)	<input type="checkbox"/>
	VII. System overheat protection	CPC 505.2	<input type="checkbox"/>
	VIII. Expansion tank sized correctly (indirect system) according to need for operation or overheat protection?	CMC 1005.3, 1005.4 CMC S 8.2.1	<input type="checkbox"/>
	IX. Air release vents installed per design	S 12.8	<input type="checkbox"/>
	X. Piping labels show type of fluid and direction of flow	CPC 601.2, S 13.4.6	<input type="checkbox"/>
	XI. Drain and fill valves labeled	CPC 601.2, S 13.4.6	<input type="checkbox"/>
	XII. Certificate of compliance posted	S 16.0	<input type="checkbox"/>

SOLAR POOL HEATING INSPECTION GUIDE			
	Guideline	Source of Guideline	Yes
STORAGE TANK	I. Tank labeled with pressure rating for pressurized storage	CPC 505.4, S 8.1.4	
	II. T & P Relief drain installed properly for pressurized storage	CPC 608.5, CMC 1006.1, S 8.1.4	
	III. Pressurized water storage tank installed with T&P relief valve	CPC 608.3, S8.1.4	
	IV. Tank installed in garage meets code requirements	CPC 507.13	
	V. Pan installed under tank (as required)	CPC 507.4, S 8.1.10	
	VI. Tank installed on level surface	CPC 508.4.3	
	VII. Tank supported for seismic loads	CPC 507.2	
	VIII. All valves, fittings and solders are rated for portable systems and meeting CA lead law requirements	CPC 604.1	
	IX. Unions installed within 12" of tank connections for all piping to and from tank and heat exchangers	CPC 609.5	
	X. Single-wall heat exchanger installed with a label	S 11.2	