



**Solar Water Heating Program
System Completion Form**

for

Solar Pool Heating Systems

[UTILTIY NAME, CONTACT INFORMATION AND LOGO]

CERTIFICATE OF INSTALLATION

Site Address _____

Customer Name _____

The solar pool heater described below and installed at the above address is complete and meets all requirements of [UTILITY NAME]'s Solar Pool Heater Program. I, the undersigned, certify the information on this form is true and correct.

Company Name

Signature

Name (printed)

Date

[UTILITY NAME] SOLAR POOL HEATING PROGRAM SYSTEM COMPLETION FORM

Company Inspecting:

Inspected by:

Date:

[UTILITY NAME] Participating Contractor _____ Building Permit ___ Eugene ___ Springfield ___ Lane County
New Construction ___ Yes ___ No Permit # _____ # of Bedrooms ___ # of People in Home

POOL DATA

Location: _____ Outdoors _____ Indoors
If indoor pool, average environment temperature _____ degrees F
Pool Size: Surface area _____ sq. ft Average Depth _____ feet Capacity _____ gallons
Pool Use Season: First month _____ Last Month _____
Pool Cover: Type: _____ Transparent, Bubble-type
_____ Other (describe): _____
Hours/day pool is covered: _____ hrs winter _____ hrs summer
Pool Temperature: _____ °F (winter) _____ °F (summer)
Pump: Rating: _____ amps _____ volts _____ watts
Time clock? Yes/No Circulated for _____ hours/day
Electric Backup Heater: Rating: _____ KW Location: _____

SOLAR SYSTEM DATA

System name & model number: _____
Collector Information: Manufacturer: _____ Model # _____ Row1:
collectors _____ Each collector: width ___ ft. x length ___ ft. Total Area Row 1 _____ sq. ft.
Tilt _____ degrees Orientation _____ degrees E or W of true south
Row 2: # collectors _____ Each collector: width ___ ft. x length ___ ft. Total Area Row 2 _____ sq. ft.
Tilt _____ degrees Orientation _____ degrees E or W of true south
Row 3: # collectors _____ Each collector: width ___ ft. x length ___ ft. Total Area Row 3 _____ sq. ft.
Tilt _____ degrees Orientation _____ degrees E or W of true south
Differential Controller: Manufacturer: _____ Model # _____
Motorized 3-way valve: Manufacturer: _____ Model # _____
Length of piping runs (collector outlet to mechanicals): _____ feet
System flow rate: _____ gpm

[UTILITY NAME] SOLAR POOL HEATER PROGRAM INSPECTION CHECKLIST

Date of Inspection

A. Consumer Documents

1. When applicable, customer has received building permit for the system installation.
2. Customer has received contractor's installation and manufacturer's component warranties.
3. Customer has received an owner's manual and complete operating instructions.
4. Monitoring/maintenance instructions per [UTILITY NAME] specifications are plainly mounted/displayed.

B. Auxiliary Pool Heater

1. Auxiliary pool heater is electric.

C. Equipment and Installation

General

1. The swimming pool is equipped with a pool cover.
2. All solar system components are new (not used).
3. System operates properly.
4. All system components are covered for protection from the weather.
5. All system components are located to allow access and are adequately protected.
6. Monitoring devices are installed to be easily visible.
7. Any building insulation (attic, floor, wall) disturbed due to system installation, is restored to previous condition.

Freeze Protection

8. [UTILITY NAME] approved freeze protection is provided.
9. System is equipped with valves to facilitate a manual draining of the collectors and pipes prior to freezing weather conditions.

Collector Location, Orientation, Mounting and Plumbing

10. Collector location has PSF of 0.85 or better, as calculated from lowest edge of the collector(s), or PSF of .60 or better if ALL shading exists below the March 21 - September 21 sun line on the [UTILITY NAME] Sunchart.
11. Collectors are orientated 40 degrees E or W of due south with a tilt angle of 10 to 35 degrees; or 41 to 90 degrees W, roof pitch of 4/12 or less, with a tilt angle of 10 to 20 degrees.
12. Collectors are pitched a minimum of 1/8 inch per foot to inlet and piping is continuously pitched between collectors and drain valves a minimum 1/8 inch per foot.
13. Collector rows are plumbed to allow pool water to enter a lower corner and exit the opposite upper corner of each row and the water flows in proper direction.
14. All rows of collectors are plumbed in parallel and the plumbing from all the individual rows of collectors returns to the highest point before the final return to the pool.
15. Multiple rows of collectors with dissimilar numbers of collectors in each row are plumbed with balancing valves on the inlet piping and thermometers on the outlet plumbing and the system flow rate is balanced.
16. Collector mounting is per manufacturer's specifications.
17. Framework will resist deterioration.
18. Corrosion between dissimilar metals as been avoided in all structural components and mounting hardware.
19. Collectors that use a protruding flange connection at the headers shall have flashing installed between each flange and roof surface.
20. All roof penetrations are permanently sealed.
21. Collectors have 3 hold-down straps across the width of each collector.

System Plumbing/Piping

22. Piping between collectors and the pool mechanical system is schedule 40 PVC material and is a minimum diameter 1.5" up to 40 gallons/minute and 2" up to 80 gallons/minute.
23. System flow rate is compatible with total number and size of collector panels.
24. Piping runs are adequately supported.
25. Dielectric unions are used between dissimilar metals.
26. There are no leaks in the system plumbing.

Valves, Controls, and Meters

- ___ ___ ___ 27. Isolation ball valve and check valve are installed, enabling bypass of solar system.
- ___ ___ ___ 28. Drain valves are installed at the lowest point in the system on the collector inlet and outlet piping.
- ___ ___ ___ 29. Vacuum relief valve is installed on the upper collector header for each row of collectors.
- ___ ___ ___ 30. System is equipped with a motorized three-way valve installed in the supply piping to the pool after the pool filter, powered by a differential temperature controller.
- ___ ___ ___ 31. Controller is set for desired pool temperature, mounted within 6 ft of the pool mechanical equipment and is hard-wired or plugged into nearest outlet with the wiring securely attached. If plugged into an outlet, the plug is labeled per [UTILITY NAME] specifications.
- ___ ___ ___ 32. Sensors are placed correctly and attached securely.
- ___ ___ ___ 33. Sensor wiring has good connections and is protected from weather and high temperatures.
- ___ ___ ___ 34. Flow meter is provided.
- ___ ___ ___ 35. A thermometer is installed in the return line from the collectors and prior to the auxiliary pool heater.
- ___ ___ ___ 36. All valves, gauges and instruments are labeled per [UTILITY NAME] specifications.

Notes: _____

