SOLAR RATING & CERTIFICATION CORPORATION
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APPLICATION FOR SOLAR COLLECTOR CERTIFICATION

NOTE: SEPARATE APPLICATIONS MUST BE SUBMITTED FOR EACH COLLECTOR MODEL
E-mail completed form to: apply@solar-rating.org

NAME OF COMPANY: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE NUMBER: (___) _____ CONTACT PERSON: _____

WEB SITE: _____

FAX NUMBER: (___) _____

E-MAIL: _____

TOLL FREE NUMBER: (___) _____

EQUIPMENT TYPE:

[ ] Stationary Glazed Flat Plate Liquid
[ ] Stationary Unglazed Flat Plate Liquid
[ ] Stationary Concentrator
[ ] Tracking Concentrator
[ ] Tracking Flat Plate Liquid
[ ] Air
[ ] Evacuated Tube
[ ] Integral Collector Storage (ICS)
[ ] Non-separable Thermosiphon Unit
[ ] Site Built/Site Dependent
[ ] Other (Please specify): _____

COLLECTOR MODEL NUMBER: _____

COLLECTOR BRAND/TRADE NAME: _____

WHICH MODEL NUMBER WILL BE RANDOMLY SELECTED FOR TESTING? _____

WHICH LAB WILL CONDUCT THE TEST? _____

"The information submitted with this application has been reviewed by me and is true and correct to the best of my knowledge and belief. I hereby agree that no representation will be made that the above solar collector has been tested in conformance with SRCC Standard-100 unless and until written authorization has been received from SRCC."

NAME (printed): _____

SIGNATURE: _____

TITLE: _____ DATE: _____

Collector Documentation Form

Documentation must be submitted by the requesting company for each collector to be certified. This information will provide a permanent record of the configuration, dimensions, and other specifications, will identify materials used in the collector, and will aid in engineering evaluation.

1. **Collector Identification**
   Manufacturer, Address and Telephone:

   Collector Model Number:

2. **Drawings**
   Drawings shall be attached and submitted showing sufficient detail to accurately represent:

   a. Aperture cover plate dimensions and mounting detail.
   b. Absorber plate dimensions including thickness, location and spacing of fluid flow paths, cross-section dimensions and shape of flow channels, tube wall thickness, plate-to-heat transfer provision, and flow tube to header connection.
   c. Collector enclosure dimensions, provisions for attaching absorber and cover plate, size and location of holes
   d. Collector assembly detail specifying fasteners and other attachment methods and indicating overall dimensions
   e. Insulation placement and thickness.

3. **Materials and Specifications**
   This section shall include all component materials information. Upon request, properties relating to thermal, flame spread, electrical, or optical characteristics, as specified by the supplier, shall be furnished.

Overall Dimensions:
Length

Width

Depth

Overall Gross Front Area: (Length x width)

Transparent Frontal Dimensions:
Length

Width

Area

Glazing:
Number of Cover Plates

Material(s)

Thickness(es)

Transmittance(s)

Interglazing Space

Air Space (Glazing to Absorber)

Absorber:
Type (i.e. sheet, fins, etc.)

Material(s)

Length

Width

Area

Plate (or for ICS, wall) thickness

Absorber Plate to Fluid Passage Bonding Method

Number of Flow Tubes

Flow Pattern

Tube O.D. Header O.D.

Tube I.D. Header I.D.

Absorber Coating:
Generic name

Material

Method of application

Substrate

Absorptivity

Emissivity

Reflectors or Lenses:
Materials

Dimensions

Mounting Frame

Collector Unit Enclosure:
Side Frame Materials

Backing Material

Trim, retainers, mounting brackets

Collector **Insulation: (Back and Sides)**
Material(s)

Dimensions

K-factor

Caulking, Sealant, Gaskets:
Materials

Thermal and Mechanical Bonds:

Heat Transfer Fluid:
Material

If other than water:

Density

Specific Heat

Toxicity

Collector / ICS / Nonseparable Thermosiphon Unit Weight:

Collector or ICS Volumetric Fluid Capacity:

Normal Operating Temperature Range:

Fluid Flow Rate:
Maximum

Recommended operational flow rate

Pressure Rating:

a. Street Pressure Collector
Operating Pressure 80 PSIG, Test Pressure 160 psig

b. Low Pressure Collector
Specify Test Pressure _____psig
(Operating pressure will be listed as test pressure divided by 1.5)

c. Other (specify maximum test pressure):

Special Features:

For Flat Plate or Tubular Collectors:
NOTE: Certification is granted only for the fluid and flow rate used to generate the test data. Unless otherwise approved by SRCC prior to testing:
- Glazed liquid-heating collectors must be tested at a flow rate no greater than the ISO recommended flow rate per unit area (gross frontal area) of 14.7 lb/(hr ft²)
- Unglazed liquid-heating collectors must be tested at a flow rate no greater than the ASHRAE 96 recommended flow rate per unit area of 51.5 lb/(hr ft²).
- Air-heating collectors are to be tested at the flow rate specified by the collector manufacturer, as long as the temperature rise across the collector is at least 10^{o}K when operating with the inlet air temperature equal to the ambient air temperature under a solar irradiance of 900 W/m^2.

For ICS or Non-separable Thermisphon Units with a Heat Exchanger built into the unit:
Describe any heat exchanger(s) located within the unit. Provide heat transfer data sufficient to fully describe the performance of the heat exchanger under normal solar water heating use conditions.

For Non-separable Thermisphon Units:
Storage Tank Enclosure:
Side Frame Materials

Backing Material

Trim, retainers, mounting brackets

Storage Tank Insulation: (Back and Sides)
Material(s)

Dimensions

K-factor

Non-separable Thermosiphon Tank Volumetric Fluid Capacity: