Summary of Significant Changes
between the December 2010 and June 2011 editions of
Solar Water Heating Systems”

General: The changes between the two editions are related to the tank and heat exchanger design criteria; an additional test for the system was included.

Section 6.1.3.1, Tank Design Requirements:

...Tank(s) designed to be installed outdoors shall be subjected to the qualification tests in SRCC Standard 100, “Test Methods and Minimum Standards for Certifying Solar Collectors,” Sections 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.11 and 5.12 or a similar test procedure approved by SRCC. During these tests, if solar collectors are intended to be connected to the tank (eg. as in a thermosiphon system), the solar collector(s) must be installed in accordance with the system manufacturer’s normal installation procedures. Following the tests specified above, if solar collectors are intended to be connected to the tank, the tank and the collectors shall be filled with the heat transfer fluid(s) specified in the installation manual and allowed to operate as they would in a typical installation while being exposed to one of these conditions:

- Outdoors: one day with the daily clearness index (Kt) is equal to or greater than 0.7, where:

  \[ Kt = \frac{\text{average radiation at the earth’s surface}}{\text{average radiation available at the top of the atmosphere}} \]

- Under a solar simulator: eight hours with the irradiance greater than 800 W/m² and the ambient air temperature greater than 25 oC.

After all of these tests have been completed, there shall be no severe deformation of any of the tank components or excessive retention of water anywhere inside the tank jacket.