

ICC 902/ PHTA 902/ SRCC 400-2020

Solar Pool and Spa Heating System Standard

American National Standard

International Code Council
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ICC 902/PHTA 902/SRCC 400—2020 Solar Pool and Spa Heating System Standard
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Consensus is established when, in the judgement of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution.

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FOREWORD

Introduction

The first version of the SRCC 300 Solar Thermal System Standard was developed in 1989 by the Solar Rating and Certification Corporation (SRCC) as a result of efforts by a consortium including the U.S. Department of Energy, National Renewable Energy Laboratory (NREL), Interstate Renewable Energy Council (IREC), Florida Solar Energy Center (FSEC) and the Solar Energy Industry Association (SEIA). It was later updated collaboratively with ICC to develop ICC 900/SRCC 300. While ICC 900/SRCC 300 addressed solar energy systems generally for heating, cooling, dehumidification and co-generation, it did not specifically address solar water heating systems used for pool and spa applications. This was due to the specialized nature of pool and spa heating loads and the unique water quality and safety considerations involved with these systems.

In 2015, SRCC, the Association of Pool and Spa Professionals (APSP), [now the Pool and Hot Tub Alliance (PHTA)], and ICC agreed to collaborate to develop a new standard to address solar water heating systems for pools and spas through ICC's ANSI-approved Standard Development process and to seek designation as an American National Standard (ANS). With direction from ICC's Board of Directors and APSP, the ICC Standards Council appointed a consensus committee to develop a new standard to establish minimum requirements for safety, performance and installation of solar pool and spa heating systems. The new standard, ICC 902/APSP 902/SRCC 400, Solar Pool and Spa Heating System Standard was published and approved by ANSI in 2017.

Development

The original 2017 edition of the *International Code Council*[®] (ICC[®]) 902/Association of Pool and Spa Professionals (APSP) 902/Solar Rating and Certification Corporation[®] (SRCC[®]) 400 *Solar Pool and Spa Heating System Standard* drew some material from the ICC 900/SRCC 300—2015 standard, but adapted it to the unique needs of pool and spa applications. This standard was developed by the ICC Pool Solar Heating and Cooling Standard Consensus Committee (IS-PHSC) operating under ANSI-approved ICC Consensus Procedures for the development of ICC standards.

For the 2020 revision cycle, the standard was transferred to the ICC Solar Thermal Standard Consensus Committee (IS-STSC) to allow it to be updated along with the other ICC solar thermal standards in a coordinated way. Proposals to update the standard were solicited by the IS-STSC for the 2020 review cycle. None were received and the committee voted to reaffirm the standard.

The requirements in ICC 902/PHTA 902/SRCC 400—2020 are based on the intent to implement standards for solar water heating systems applied to residential and commercial pools and spas, consistent with the requirements established in ICC and PHTA standards for these applications and the *International Swimming Pool and Spa Code*[®] (ISPS[®]). The project brought together subject matter experts from both the pool and solar industries to ensure the proper integration of pool and solar systems and appropriate levels of safety and function. The standard includes both well-established solar thermal and emerging solar photovoltaic water heating technologies. The resulting document provides protections for health, safety and welfare while avoiding unnecessary restrictions on the use of new materials, technologies or designs.

Adoption

ICC 902/PHTA 902/SRCC 400, *Solar Pool and Spa Heating System Standard* is available for reference and use by jurisdictions in both codes and incentive programs internationally. It establishes minimum standards for solar pool heating systems, addressing health, safety and durability. Its use within a governmental jurisdiction is intended to be accomplished through adoption by reference in accordance with proceedings establishing the jurisdiction's law.

FOREWORD

Interpretations

Requests for interpretations on the provisions of ICC 902/PHTA 902/SRCC 400—2020 should be addressed to: ICC, Central Regional Office, 4051 Flossmoor Road, Country Club Hills, IL 60478.

Maintenance—Submittal of Proposals

All ICC standards are revised as required by ANSI. Proposals for revising this edition are welcome. Please visit the ICC website at www.iccsafe.org for the official “Call for Proposals” announcement. A proposal form and instructions can also be downloaded from www.iccsafe.org.

ICC, PHTA, SRCC, its members and those participating in the development of ICC 902/PHTA 902/SRCC 400—2020 do not accept any liability resulting from compliance or noncompliance with the provisions of ICC 902/PHTA 902/SRCC 400—2020. Neither ICC, PHTA nor SRCC have the power or authority to police or enforce compliance with the contents of this standard. Only the governmental body that enacts this standard into law has such authority.

International Code Council Solar Thermal Consensus Committee (IS-STSC)

Consensus Committee SCOPE: The Solar Thermal Standard Consensus Committee (IS-STSC) shall have primary responsibility for minimum requirements to safeguard the public health, safety and general welfare along with minimum performance, and evaluation requirements for solar thermal systems. The requirements contained in the *International Codes* pertaining to these situations shall be coordinated with the standards developed by the IS-STSC Consensus Committee.

This standard was processed and approved for submittal to ANSI by the ICC Solar Thermal Standard Consensus Committee (IS-STSC). Committee approval of the standard does not necessarily imply that all committee members voted for its approval.

Representatives on the Consensus Committee are classified in one of three voting interest categories, General Interest (G), User Interest (U) and Producer Interest (P). The committee has been formed in order to achieve consensus as required by ANSI Essential Requirements. At the time it approved this standard, the IS-PHSC Consensus Committee consisted of the following members:

David Beard (P), Heliodyne, Richmond, CA

Andreas Bohren (U), SPF Institute for Solar Technology, Rapperswil, Switzerland

Adam Chrisman (P), SunEarth, Fontana, CA

John Del Mar, PE (G), City of Santa Fe, Santa Fe, NM

Stephan Fischer, PE (U), IGTE University of Stuttgart Institute for Building Energetics Thermotechnology, Stuttgart, Germany

Kayla Sheraine Gabourel (G), Ministry of the Public Service, Energy & Public Utilities, Belmopan Cayo, Belize

Kevin M. Garbie (P), Aquatherm Industries, Inc., Lakewood, NJ

Robert Grady (U), LabTest Certification, Inc., Las Vegas, NV

Gary L. Hansen, CBO (G), City of Marion, Marion, IA

Kevin D. Kalakay (G), State of Michigan, Lansing, MI

Ramiro Mata (U), American Society of Plumbing Engineers, Mentor, OH

Henry K. Vandermark (P), Solar Wave Energy, Inc., Cambridge, MA

Secretary: **Shawn E. Martin**, Vice President of Technical Services, Solar Rating and Certification Corporation (ICC-SRCC), Pittsburgh, Pennsylvania

Voting Membership in Each Category

Category	Number
General (G)	4
User (U)	4
Producer (P)	4
TOTAL	12

Interest Categories

General Interest: Individuals assigned to the General Interest category are those who represent the interests of an entity, including an association of such entities, representing the general public, or entities that promulgate or enforce the provisions within the committee scope. These entities include consumers and government regulatory agencies.

User Interest: Individuals assigned to the User Interest category are those who represent the interests of an entity, including an association of such entities, which is subject to the provisions or voluntarily utilizes provisions within the committee scope.

These entities include academia, applied research laboratory, building owner, design professional, government nonregulatory agency, insurance company, private inspection agency and product certification/evaluation agency.

Producer Interest: Individuals assigned to the Producer Interest category are those who represent the interests of an entity, including an association of such entities, which produces, installs or maintains a product, assembly or system subject to the provisions within the committee scope. These entities include builder, contractor, distributor, laborer, manufacturer, material association standards promulgator, testing laboratory and utility.

NOTE—Multiple Interests: Individuals representing entities in more than one of the above interest categories, one of which is a Producer Interest, are assigned to the Producer Interest. Individuals representing entities in the General Interest and User Interest categories are assigned to the User Interest.

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