Qualifying Inspection Form Instructions

ICC-SRCC Qualifying Inspection Form Rev. 6

PURPOSE

The ICC-SRCC Qualifying Inspection Form must be completed by an inspector assigned by ICC-SRCC who examines a new production facility and/or quality management system. It facilitates the collection of information that establishes a baseline understanding of the organization, function and implementation of the production system. Subsequent inspections can be conducted using the ICC-SRCC Surveillance Inspection Form, which examines the operation since the last factory inspection.

STRUCTURE

The form is divided into several sections. Sections 1-4 provide a summary of the inspection with the type, date, parties involved, location, and products covered. It also includes an executive summary of the inspection to be completed at the end of the inspection. Space is provided for signatures of the lead inspector and listee or manufacturer representative at the end of Section 4.

Section 5 contains the detailed checklists used to assess the Quality System and implementation in production facilities and processes. Section 5, Part A, examines the Quality System used for the certified product. It involves the review of policies and procedures and is primarily a document review exercise. It can be completed prior to an in-person inspection at the discretion of the inspector. Part B checks the implementation of the incoming goods and materials processes and their adherence to the policies and procedures in Part A. Part C examines the Production and Assembly processes and seeks to confirm the quality system reviewed in Part A. Part D examines the labeling of certified products and the conformance with ICC-SRCC polices and those of the relevant codes and standards.

Part 6 provides basic information on the process by which the completed form is to be submitted to ICC-SRCC and provided to the listee.

There are three Appendices that provide additional forms for use in the report as needed. If there are non-conformities documented, they are to be individually summarized on the form in Appendix A and provided with the report. Appendix B provides a form for the entry of the key documents reviewed during the inspection process. Appendix C provides a form for the entry of additional products, if there are more than 12 (the limit that can be entered in Section 2). Each of the Appendix Forms may be duplicated to provide additional room for entries as needed. For the PDF version of the inspection form, the appendices are provided as separate PDF documents for use as needed.

INSPECTION FORM INSTRUCTIONS

The following sections are organized in the same way as the form, providing additional information and resources on each to aid the inspector. In several locations, references are provided to sections in the *ICC-ES Acceptance Criteria for Quality Documentation (AC10)*. These are provided for guidance purposes only.

1. GENERAL

This section identifies the inspection participants and details. It identifies the lead inspector, providing their contact information, other inspectors present, the date of the inspection and the type (Onsite, Remote, or both. If the inspection is conducted both onsite and remotely, check both boxes, and enter the dates of each portion. If an auditor or certification body witness is present for the inspection, they should be identified here as well.

The name of the Listee should be entered and must match the listee name on the certifications or listings entered in Section 2. The name and address of the production facility subject to inspection are also to be entered since they may differ from that of the listee in some cases. If the inspection is addressing a quality system where there is no onsite production, and the inspection is conducted remotely, enter "NA" in this section. The Primary contact for the manufacturer is to be designated and entered, along with their contact information. The name and titles of other attendees on behalf of the listee or manufacturer should also be entered. If the inspection is conducted entirely remotely, enter the names of all online participants here.

2. PRODUCTS COVERED

The certified and listed products subject to inspection are to be listed here. Section 2 has room for up to 12 products. If more are to be included, use the form provided in Appendix C, and attach it to the main report. Enter the certification/listing number from ICC-SRCC or ICC-SWCC and the associated program (OG-100, OG-300, OG-400, Solar Listing, Wind Listing). The manufacturer's model name or number should also be entered for each. The certifications held for solar thermal products under the ICC-SRCC program for each listee can be found in the online directory at www.solar-rating.org/directory Wind turbine listings can be found on the ICC-SWCC directory at www.smallwindcertification.org

3. INSPECTION RESULTS SUMMARY

This section should be completed at the end of the inspection, providing a synopsis of the results, number of non-conformities identified and general remarks. It should provide an executive summary of the inspection.

4. SIGNATURES

The completed inspection report must be signed by the lead inspector and a representative of the listee or manufacturer. By signing the lead inspector attests that the information is accurate to the best of their knowledge and that they have no undeclared conflicts of interest.

The signature of the listee or manufacturer's representative (in the case where the manufacturer differs from the listee) acknowledges the findings contained in the inspection report. It does not imply that they agree with all findings. They may also enter comments into the remarks section for the consideration of ICC-SRCC, separately from those of the inspector.

5. PRODUCTION CONTROL ASSESSMENT

Part A: Review of Quality System

This portion of the inspection involves the assessment of the quality system employed by the manufacturer for the certified products. It includes the policies, procedures and records associated with that quality system. Note that this does not necessarily require the presence of a Quality Manual on an ISO 9001 process (although both are commonly used to establish production quality control systems). The requirements listed below can be satisfied by more than one document. References are provided to AC10 to provide additional reference information. Review of these documents may be conducted prior to an in-person inspection. Regardless, steps should be taken onsite to confirm implementation of the requirements set out in the quality management system as they relate to the certified products.

1. Basic Elements (AC10 §2.0). A quality management system must be in place containing the following basic elements, along with Topics 2-5 below:
    a. Documents in place describing the manufacturing process for the certified products including all in-process quality control procedures used to produce certified product meeting design specifications. (AC10 §2.1.6)
    b. Must include the manufacturer's organizational chart and a description of the duties and responsibilities of key individuals in the quality program for the certified products. (AC10 §2.1.8)
    c. A procedure or policy must be in place to record and act upon significant complaints received regarding products covered by ICC-SRCC certifications or listings. Confirm that the policy requires documentation of the complaint and action taken. Confirm that the policy requires that significant complaints are reported to ICC-SRCC promptly. Review complaint records for the certified products and evaluate the implementation of complaint policies. (AC10 §2.1.10)
    d. Policies required to keep records associated with quality systems for a minimum of 2 years. Includes, but not limited to records related to complaints, design changes and calibrations. (AC10 §2.7.3)
2. Design Control. (AC10 §1.4.4.1, §2.1.7)
    a. Documents in place controlling the design of custom components and final assemblies. For off-the shelf components and subassemblies documentation is required for the specifications and/or requirements. May include drawings, parts lists, material specifications, or other document types. List specific design control documents reviewed in Section D.
    b. Criteria must be established for conformity or non-conformity of materials, components and assemblies as needed for production quality control and incoming goods inspections. These may include characteristics like dimensional tolerances, finish, material quality and shape.
    c. Changes to designs, materials and conformity criteria of certified products must be documented and evaluated. Processes must be in place for notification of appropriate parties of significant changes. For ICC-SRCC this is especially important where such changes have the potential to impact the compliance of the product with applicable codes or standards, or alter product performance, safety or durability.

3. Incoming Goods and Materials. (AC10 §2.2)
    a. Procedures must be in place to inspect incoming goods and materials used in the assembly of certified products. Inspections should be conducted as needed in order to meet relevant design control specifications. This applies to both materials, components and sub-assemblies (custom and off-the-shelf). This applies to products that are assembled in a factory (most OG-100 solar collectors and SWCC wind turbines) and to systems that are assembled in the field (OG-300 solar water heating systems).
    b. Instructions must be available for personnel responsible for conducting inspections. That does not mean that they must be in any particular location, just that they are readily accessible (physically or digitally).
4. Calibration (AC10 §2.6)
    a. Policies/procedures must be in place to maintain calibration of devices used for testing, measuring and inspection of certified products. These devices may be used in incoming goods inspections or factory production control processes. The intent is to confirm compliance in accordance with design specifications. This does not stipulate the number or type of calibrated devices that must be present. It only applies to the handling of any devices used to confirm compliance with design specifications at any stage in the quality system.
    b. Calibrated devices must have some identifying marking that specifically ties them to calibration records. This can take any number of forms such as etching, inscription, labels, etc.
    c. Demonstrated evidence that calibrated devices are checked and recalibrated regularly, meeting frequency requirements established in policies and procedures above. Calibration records must be maintained for a minimum of 2 years for each calibrated device. List all evaluated devices with calibration and where they are used.
5. Finished Products (AC10 §2.1.9)
    a. Procedures or policies define the activities or steps needed to confirm compliance with design specifications for the final product (testing, inspection, etc.) List any equipment, devices or methods that were used to carry out checks on finished products.
    b. Directions are established for packaging or storage after production in preparation for shipment or transport to the installation site. Note that this may not be applicable in cases where assembly occurs in the field (e.g. OG-300 solar water heating system).
    c. Procedures are established for the handling, segregation and disposition of non-compliant product. This procedure focuses on segregation of product that does not meet design specifications at any stage in the manufacturing process. Products, components, or materials may be reworked or repaired, provided that it can be shown that it then meets all design specifications.

Part B: Implementation of Incoming Goods and Materials Inspections

This portion of the inspection seeks to confirm the implementation of the incoming goods and materials inspection requirements established in the policies reviewed in Part A.

Where these inspections take place at the facility being inspected, the items listed below should be verified directly at the location the inspections take place. Where these inspections take place at another facility or in the field, documentation or some other evidence should be provided for each of the following items.

1. Materials and goods undergoing incoming inspections were listed in Part A. Confirm that these inspections are being carried out for each.
2. Confirm that the results of incoming inspections are being recorded in accordance with the requirements of policies and procedures evaluated in Part A.
3. Verify that devices used for measurements, inspections or tests of incoming goods are available to responsible personnel.
4. Verify that personnel responsible for incoming inspections have access to instructions to carry them out. These need not be physically present at the location of the inspection, but readily available in digital or physical form.

Part C: Implementation of Quality System in Production Processes

This portion of the inspection seeks to confirm the implementation of the quality system in the production and/or assembly processes used for the certified products. It applies whether the activities take place in the factory or in the field.

1. Confirm that instructions for either the onsite production line operation or offsite field assembly of certified products are readily available to the responsible personnel. Instructions can be physical copies or digital material readily available to personnel.
2. Devices or equipment used for required quality checks during production or for finished equipment are present or readily available. If the devices are calibrated, they comply with the requirements evaluated in Part A. For field-assembled products devices used for quality checks must be clearly identified, along with directions for their use.
3. If policies prescribe recording of the results of quality checks, confirm that the records are being collected and retained. This section does not require the collection of quality information (although it is a best practice), only that the client's policies are being implemented.
4. If non-conforming products are identified, verify that they are segregated and controlled in accordance with the policies reviewed in Part A. If those policies prescribe record-keeping related to non-conforming products, confirm that it is being implemented.
5. Finished goods are handled, stored and packaged in accordance with requirements reviewed in Part A. Note that this may not be applicable to field-assembled systems, such as OG-300 solar thermal systems. However, even in that case, if custom components are produced at the facility for shipment or transport to the field for assembly, their packaging and storage are subject to this evaluation.

Part D: Product Marking & Labeling (AC10 §2.1.4)

This portion of the inspection evaluates compliance with ICC-SRCC marking and labeling requirements for the products produced.

1. Confirm that products are labeled in accordance with ICC-SRCC requirements for that product and certification program. Label must include the information contained in the

"Identification" section of the certification or listing report. Each certified product must be labeled with the mark and additional information below at a minimum. ICC-SRCC marks may be provided in color or black/white. Permissible marking locations are also provided.

2. Sample the labeling of several certified products. List the specific products sampled. Provide example photos of marking observed where possible.

PROGRAM	CERTIFICATION MARK	LOCATION	MINIMUM INFORMATION TO BE PROVIDED
OG-100		Permanently affixed to the solar thermal collector.	From ICC 901/SRCC 100, Section 502 1. Model name and/or number. 2. Year of manufacture and/or serial number. 3. Certification number and third-party certification agency. 4. Maximum operating pressure. 5. Dry weight. 6. Fluid volume. 7. Compatible heat transfer fluids. 8. Standard stagnation temperature.
OG-300		Permanently affixed to tank or auxiliary water heater in the field.	From ICC 900/SRCC 300, Section 402 1. Manufacturer's name. 2. Model number. 3. System listing number and third-party certification agency. 4. Collector listing number, third-party certification agency and quantity. 5. Heat transfer fluid and concentration range. 6. Storage tank volume. 7. Expansion tank volume. 8. Relief valve specification and setpoint. 9. Maximum water supply pressure. 10. Maximum solar loop pressure. 11. Flow rate range (where a flow meter is installed). 12. Backup energy rating. For electrical, include phase/volts/amps. For gas, include minimum pressure. 13. Installation date field (to be entered by the installer in the field).
OG-400	No OG-400 labeling verification required.		
Solar Listing			Determined by the specific code and/or standard used in the listing. See the "Identification" section of the listing report.

Wind Listing	No SWCC labeling verification required.
ENERGY STAR	No ENERGY STAR mark verification required.

6. COMPLETION AND SUBMISSION INSTRUCTIONS

1. At the conclusion of the inspection, the report should be signed by both the lead inspector and the manufacturer's representative in Section 4. The report may be signed electronically. This can be done at the time of the inspection or shortly after upon completion of the inspection report. Either way, it should not be submitted to ICC-SRCC until it has been signed.
2. Instructions are provided for the submission of the completed inspection report and accompanying materials. The report should be submitted via e-mail to ICC-SRCC at srcc@solar-rating.org for solar products and swcc@solar-rating.org for wind products. If, however, the file sizes are too large for e-mail, contact SRCC for other options (such as Dropbox or OneDrive).
3. The inspector should provide a copy of the completed report to the listee or manufacturer's representative who signed Section 4. The copy can be either a hardcopy or electronic copy as requested.