

Why Should I Care About ICC-ES Evaluation Reports?

by Elyse G. Levy, S.E.

As a member of the technical staff in the Chicago office of ICC Evaluation Service, Inc. (ICC-ES), I have become aware of regional differences in how ICC-ES Evaluation Reports are used. In some parts of the country, code officials rely heavily on ICC-ES Evaluation Reports, and the local design community is therefore very familiar with these reports.

However, in other parts of the country, it has been customary to rely upon manufacturers' product literature rather than evaluation reports. On more than one occasion, I have had former colleagues in the design community ask me, "Why should I care about an ICC-ES Evaluation Report?" Since I am sure that they are not alone in wondering about this, what follows is an answer to this question.

Whether you are interested in knowing more about a product that you are already familiar with, or are investigating a product that is new to you, there are several aspects of an ICC-ES Evaluation Report that can be beneficial. The reports provide objective, independent information about a product's

"I have found ICC-ES Evaluation Reports to be an invaluable tool when trying to understand the many construction products on the market today. The information they provide helps to speed up the plan review process for compliance with the codes."

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compliance with the IBC and other model codes. In the case of cladding and structural products, the reports include load capacity information that has been verified through testing by an accredited testing laboratory. Also included in each report are conditions of use which highlight aspects of use or installation that effect the code compliance of the product. And finally, an evaluation report is issued only after the manufacturer has demonstrated that a quality control system is in place that will ensure that the product remains consistent.



Understanding the Evaluation Process

In order to appreciate how objective our reports are, it is helpful to understand the process that is used to evaluate each product. Before an evaluation is performed, a basis for evaluation is established. Then the data on the product is reviewed by our knowledgeable technical staff, and a draft of the evaluation report is prepared. Issues and concerns are worked out with the manufacturer and a qualifying inspection of the manufacturing facility is performed by an accredited third party inspection agency. After internal review by our technical staff, in accordance with our ANSI-accredited quality control system, the report is ready for final review by the applicant. Once the evaluation report is issued, the product is allowed to be labeled with the evaluation report number (ESR-XXXX) and the report is posted on the ICC-ES website at www.icc-es.org. ICC-ES Evaluation Reports may be found by searching for the number, the product or the manufacturer and are available free of charge to anyone who is interested.

The beginning point for determining the basis for evaluation of a product is the building code. When the product is an alternative to the code, or the code does not

provide sufficient information for determining compliance, an ICC-ES Acceptance Criteria is developed. This criteria spells out what is required of the manufacturer in the way of testing, calculations, safety factors, quality control, product identification, etc. Before the criteria can be used, it must be approved by the Evaluation Committee, which is made up of code officials. The public has the opportunity to comment on the proposed criteria both in writing and in front of the committee. Once a criteria is approved, it is posted to the ICC-ES website as a public document. Over time, the criteria may be revised, expanded or simply updated to reflect the requirements of the current code. These revisions must also be approved by the Evaluation Committee. This process of establishing criteria ensures a level playing field for all manufacturers of the same type of product, because each is held to the same requirements.

Once an evaluation basis has been established for a product, the evaluation process can begin. The report applicant must submit information, test data and quality documentation in accordance with the applicable criteria. The reviewing engineer must then determine if these submittals have indeed met the requirements. If they have not, correspondence is exchanged until all of the requirements have been met. As this process unfolds, the evaluation report is developed. If the product meets all of the requirements, the process culminates in a evaluation report draft that is sent to the applicant for approval. This is a deliberate process which may vary in the time it takes to develop the report, depending upon the complexity of the evaluation and the manufacturer's familiarity with the requirements.

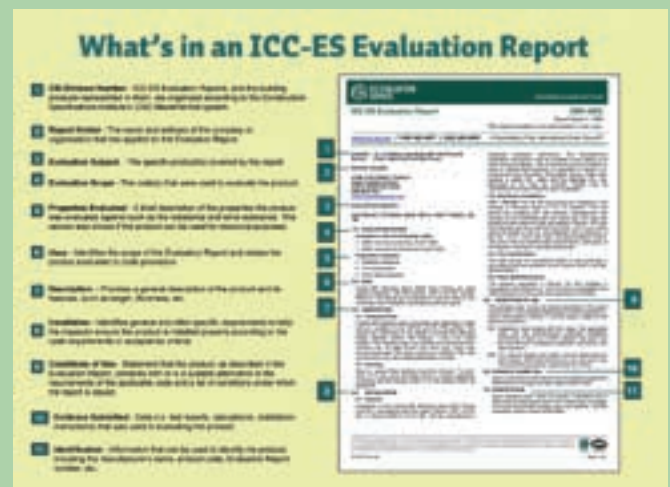
Reading an Evaluation Report

The evaluation report contains several discrete sections, each of which contains valuable information. The general

What's in an ICC-ES Evaluation Report

Evaluation reports from ICC Evaluation Service® are the most preferred resource used by code officials to verify that new and innovative building products comply with code requirements. The evaluation reports provide information about what code requirements or acceptance criteria were used to evaluate the product, how the product should be installed to meet the requirements, how to identify the product, and much more.

For more information, visit our website:
www.icc-es.org/readareport.



information section at the beginning of the report includes the CSI classifications for the products, the report holder's name and contact information, and the evaluation report subject. Section 1.0 addresses the scope of the evaluation, listing the codes under which the product is recognized and showing the properties evaluated. Typical properties include structural, surface-burning characteristics, fire-resistance ratings, wind resistance, weather resistance, thermal resistance and more. Section 2.0 describes the intended use of the product, which is what has been considered in the evaluation. The information contained in the remainder of the report is only applicable to the intended use identified in this section. Section 3.0 provides a description of the product and requirements for materials used in the installed assembly that are not provided by the manufacturer. For instance, in a report on a power driven fastener, Section 3.0 would include a description of the fastener, but also of the substrate materials into which the fastener may be installed. Section 4.0 of an evaluation report addresses design and installation requirements and limitations. The design section is where you will find determinations such as load capacity, finish classification, thermal resistance, etc. The installation section addresses concerns such as methods of attaching the product to the supports, the minimum temperature at time of installation, cure times, etc. Section 5.0 contains the Conditions of Use for the product. These generally identify the parameters for which the product is recognized, such as construction type and exterior versus interior use, requirements for what must be submitted to the code official, and highlighted code information pertinent to the use of the product. In the case of a product required to have ongoing third-party inspections, Section 5.0 is where the facility and the inspection agency are identified. Section 6.0 identifies the basis of evaluation by either referring to the relevant Acceptance Criteria or listing the evidence submitted in accordance with code requirements. Finally, Section 7.0 describes how the product is to be identified in the field. This identification always includes the ICC-ES report number (ESR-XXXX).

For Standard and Alternative Products

For product types with which you are already familiar, ICC-ES Evaluation Reports provide clear, independently obtained information. No longer do you have to rely upon

a manufacturer's product brochure to know what the product is capable of. You also have a means for comparing one product to another. Now, when your job specifications state that a particular product "or equal" is acceptable, you have a means for determining what is equal.

If you are considering using a new or alternative product for one of your projects, you will likely find that we have already done your research for you. For instance, have you ever considered using a sandwich panel or a shear panel? There are many alternate methods and materials such as these which are not mentioned in the code, but which may be the perfect solution to your design problem. The evaluation reports on our website are great resources for learning about these possible solutions and will give you the confidence of knowing that you are using the products correctly.

In conclusion, if you are interested in knowing more about innovative building materials, would like greater confidence in the design capacities you are using for alternative structural materials, or would like information on code compliance of various products, now is the time to familiarize yourself with the ICC-ES Evaluation Reports and website.



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