

by Jon-Paul Cardin, P.E.  
Construction Codes and Standards Engineer  
American Iron and Steel Institute

## **Introduction**

Evaluation Services are utilized throughout the construction industry to provide technical evaluation of products, components and methods. The end products provided by the Evaluation Services are technical reports (Reports) that confirm building code compliance for the products or methods. Products or methods not specifically addressed by the building code utilize the Reports to confirm compliance or equivalence to those accepted by the building code. However, Reports are also issued to streamline the review and approval of products and methods that are specifically addressed by the building code. These Reports benefit product manufacturers, building officials, engineers and architects.

The process for developing Reports can vary based on the product, method or the specific Evaluation Service. The product or method is evaluated based on developed criteria (Criteria) that specify required testing protocols and sections of codes and standards for which the product is to adhere. The development of the Criteria can be an unregulated process, which can lead to inconsistencies across different Evaluation Services and difficulties for individual companies seeking Reports. The difficulties experienced by companies are often in the form of additional costs for retesting or reevaluation and delayed timelines for publishing of the Reports. The intent of this white paper is to provide the user with guidance on best practices to minimize delays and additional costs.

## **Criteria Development**

Evaluation Services often have an open process for developing Criteria for each product type or methodology to be evaluated. Monitoring and participating in the Criteria development process can be advantageous for the user to ensure that the approach used in the Criteria is the most applicable for that particular product. Typically the product developer is the expert on product. Therefore, input on the development of Criteria for which the product is to be evaluated can ensure that the Report is appropriate for the product to conform to the building code.

New products and methodologies often require the development of new Criteria for evaluation. The product developer can work directly with the Evaluation Service in the Criteria development process to ensure that the appropriate test methods are followed, test data is recorded, and codes and standards are adhered to. In addition, existing Criteria are regularly updated to conform to the latest building codes and referenced standards or modified to expand the scope of products for which it applies. Companies also have the ability to monitor the Evaluation Service's activity regarding Criteria that pertain to their interests. Participation on behalf of product developers in the maintenance and development of Criteria provides valuable contributions to the process and helps ensure that the Reports reflect the appropriate information.

### **Use of Consulting Engineers**

Product manufacturers may not have the technical staff with allotted time to adequately navigate the Report process. Interruptions in the process are often the result of delayed responses to technical inquiries. Due to the nature of technical reviews, Report development can often be an iterative process in obtaining information and clarification of what has been provided. Using an engineering consultant can expedite that process. The consultant can ensure that inquiries from the Evaluation Service are responded to promptly. In addition, the participation of engineers who specialize in the product type, testing methods or the codes and standards for which the product is to adhere can be advantageous in expediting responses to the Evaluation Service.

### **Test Plan Development**

The test plan is essential to ensure that the appropriate method is used to obtain applicable product data. It is necessary to coordinate development of the test plan with Evaluation Service staff to be sure that the required information is provided and only required tests are performed. This upfront coordination will eliminate the need to go back for additional testing later. All of these factors will save the product manufacturer time and costs in the Report process. In addition, the product manufacturer should only use International Accreditation Service (IAS) or International Organization for Standardization (ISO)-accredited test laboratories. Evaluation Services should provide a list of requirements for acceptable test laboratories upon request. This effort will also eliminate the need for retesting or third-party verification.

### **Report Development**

By utilizing existing Reports as a template, product manufacturers can develop a draft Report containing the information desired. Reports follow a relatively specific format

for similar products. Providing a desired draft Report to the Evaluation Service staff upon submittal of information can assist them in the development of the Report and save time by providing guidance on the applicable information to be included. While this will not guarantee that the Report will precisely resemble the draft, any assistance provided to the Evaluation Service on the desired final product can be useful in the process.

### **Start Narrow in Scope**

Reports and Criteria are living documents that can be technically and editorially revised over time. In developing a new Report or Criteria for a product, starting with a limited scope provides simplicity and expediency to the Evaluation Service process. Once developed, the Criteria can be expanded in scope, and the Report can be revised to apply to more products or applications. As additional products are developed or the application of the products expands, the product developer can work in incremental steps to cover those applications within the previously developed Criteria and Report.

### **Conclusion**

Incorporating the above-mentioned practices in the Evaluation Service process can save time and money for the product manufacturer. As is the case in all aspects of business, communication plays an integral part in the success of the Evaluation Service process. Reports can be a great benefit to all parties involved in the construction and plan review process. Developing Reports with a clear and concise scope and in a timely manner will provide the most benefit for all users.