How to Judge an Engineering Judgment

By David Vail, P.E., Project Engineer

Most of us within the firestopping industry are familiar with the concept of an engineering judgment, which is also often referred to as an “EJ”. Regular readers of The Burn might recall our article “Judgment Day: EJs and their Place in the Firestop Industry” from the Summer 2017 issue, which examined what exactly an EJ is and why they are necessary for most construction projects. We all know what EJs are and how they are unavoidable at the job site, but what isn’t always clear is how to evaluate the suitability of an EJ. How can contractors, building owners, AHJs and other concerned parties determine if an EJ developed for their project is an appropriate fit for the specific site conditions?

The answer is actually surprisingly simple once you know where to look for help! The International Firestop Council (IFC) has developed guidelines for evaluating engineering judgments for a range of firestopping applications. The IFC is a not-for-profit association of firestop inspectors, manufacturers and users of fire protective materials. This broad base of membership allows the IFC to draw from a diverse pool of knowledge and provide impartial guidance to the firestopping industry. A link to the IFC recommendations for evaluating EJs can be found at https://www.firestop.org/engineering-judgment-guidelines.html.

The IFC engineering judgment guidelines are divided up into a number of different categories dependent on the specific type of firestop being installed. There is a general document that is suitable for all common applications including penetrations, joints, perimeter fire barrier systems and duct enclosure systems. There are also guidelines specifically tailored for evaluating EJs covering air duct, grease duct or perimeter fire barrier systems. These more focused documents provide commentary regarding the intent of these firestop systems and an overview of the testing standards used to evaluate them. Obviously each project has its own specifications and code compliance enforcement, but the IFC engineering judgment guidelines are a valuable resource for all stakeholders who are in a position to determine whether an EJ has merit or not.