

Value of Quality Processes in the Contractor Industry

- UL's New Qualified Contractor Programs –

By Betsy Titus, Underwriters Laboratories

Construction quality is a concern to many particularly when it comes to the installation of fire and life safety aspects of a building. Why? Installation can be left to contractors that may lack the proper knowledge and best practices to get the job done right. Fortunately, ISO 9000 compliance adapted for the construction industry is rapidly becoming a prerequisite for construction companies seeking international construction contracts, and the same may soon be true for firms operating solely within North America.

Why should the construction industry adopt the ISO 9000 quality management system approach? The discipline and systematic approach helps companies structure their processes to consistently meet the client's requirements. In the construction industry, the key is meeting requirements – code and architects'/specifiers' requirements that are communicated in the construction documents. Meeting those requirements is essential to greater assurance of fire and life safety in building construction today.

Establishing ISO 9000 principles in the construction sub-contracting industry is a paradigm shift for an industry whose "factory" is a building under construction. Construction sub-contractors deal with changing weather, changing construction teams at each new jobsite, and designs that change from one structure to the next.

The paradigm shift comes with great benefits to both the contractors themselves as well as everyone concerned about quality in the building structure. The installation companies that adopt ISO 9000 principles benefit through increases in "bottom line" profit as a result of better efficiency, continual process improvements and waste reduction. The architect, specifier, general contractor and design build entities, building owners and managers, and regulatory authorities benefit by gaining a greater assurance that construction products are installed to requirements.

ISO 9000 principles provide consistent and effective control of key processes, project management, promotion and standardization of good working practices and a vehicle for planned training of employees, greater emphasis on communication, leadership, effective remote site management, accountability, contractual control, and control of suppliers – which all translates into use of controlled and consistent processes. This means greater assurance that the specified designs are installed to requirements.

Two such fire and life safety materials and systems that are installed in the field while a building is under construction are firestop systems and spray applied fire resistive materials (SFRMs). Their performance often depends on the quality of

the selection and installation of materials that become systems at the job site. In turn, selection and installation depend on the knowledge and best practices of contractors responsible for those critical processes. Unfortunately, the architects that create the design and specifications, and the general contractors that select specialty contractors to install to specifications on a job site have few resources to help them identify contractors possessing the proper knowledge and that utilize the industry's best practices.

UL's Qualified Contractor Programs assess and qualify contractor firms that have demonstrated knowledge and a comprehensive management system that specifically focus on the selection and installation of firestop systems or spray-applied fire resistive materials. The contractor firm's employees are examination tested to industry standards and the firm's management systems are audited to provide an integrated approach – demonstrated knowledge and management system – to controlling the processes in addressing architectural, AHJ and customer requirements.

The management system requirements are based on ISO 9001 principles that require a complete system of checks and balances, and practices enabling a contractor to comply with established customer requirements. Management system requirements also incorporate selection and installation best practices established by two key contractor industry associations: Firestop Contractor International Association (FCIA) and National Fireproofing Contractors Association (NFCA).

Contractors are required to establish and effectively implement and maintain a management system that focuses on the selection and installation of firestop systems or SFRMs. Specially trained UL auditors conduct an audit of a contractor's processes to verify that processes exist and that they are being used effectively on the job. The essential processes required include:

- Construction document requirements and review of building plans and specifications
- Selection, purchasing, storage and handling of materials
- Installation, application and field quality assurance procedures – transmitting design and installation requirements to the field
- Inspection, testing and calibration of equipment – testing to verify that installed designs meet requirements
- Control of nonconforming materials
- Installer inspections and correction processes
- Training and qualification of staff
- Audits of their own work and processes for continued improvement

Aedan Gleeson, President of Gleeson Powers, Inc. UL's first Qualified Firestop Contractor emphasized that, "The UL Qualified Firestop Contractor Program challenged our company to be the best at what we do. It has made us a better company by implementing quality processes in our work." Richard Clayton,

President of Clayton Coatings, Inc., UL's first Qualified SFRM Contractor said "Clayton Coatings has utilized quality management processes in our work for years which has challenged our company to be the best. We expect to be able to further differentiate Clayton Coatings as a quality organization by achieving UL Qualified SFRM Contractor status."

The UL Qualified Contractor Program is now included as a contractor qualification option in MasterSpec, one of the leading resources used by architects, engineers and specification professionals to write specifications for projects. MasterSpec is published by ARCOM for the American Institute of Architects (AIA). As a result of this inclusion, the UL Qualified Contractor Program continues to show up in new building projects throughout North America and beyond.

To earn UL qualified contractor status, a contractor firm's Designated Responsible Individual (DRI) must pass a three-hour written exam. Then, the contractor firm must pass a UL-administered audit of its management system, both at the contractor's facility and as applied on the job site. A contractor firm that meets the UL Qualified Contractor Program requirements receives a UL certificate effective for one year. Qualified Contractors are re-audited annually at both the facility and jobsite to verify that the contractor's management system continues to comply with program requirements.

You can visit UL's online directory at www.ul.com/contractor to find Contractor firms that have been qualified to UL's Qualified Contractor Program. Accessible to architects, authorities, contractors, manufacturers and building owners, the directory contains a list of Qualified Firestop Contractors and a list of Qualified SFRM Contractors.

Qualified Contractors can also promote their UL Qualified Contractor status by displaying the UL Qualified Contractor logo in their promotional materials.

The Benefits of UL's Program

While other contractor certification programs exist, UL's program has the benefit of being backed by UL's engineering staff with years of knowledge and experience with fire resistive assemblies and effective compartmentation. This, coupled with UL's specially trained audit staff located throughout North America, provide an independent, third-party evaluation that architects, general contractors and regulatory authorities can look to for greater peace of mind.

The ISO 9000 quality management system approach can be an appropriate and effective tool for construction firms in North America and beyond. UL's Qualified Contractor Program is now available to provides architects, building owners and managers, general contractors and design build firms a recognized qualification to specify, identify and select specialty contractors that have been assessed by

an independent, third-party organization for their knowledge and best practices using the management system approach.

For more information on the Qualified Contractor programs, contact Betsy Titus at (847) 664-2530 or Elizabeth.Titus@us.ul.com.