

The Necessity of SPD Commissioning Part 2 - The Solution

Briefly, as presented in Part One; over the years, we have seen many scenarios where a SPD system is properly designed, bid, awarded, shipped and assumed to be installed properly. Then, somewhere down the road, the Owner sustains damage to their equipment that they paid to protect. Each specific SPD model number specified is installed and connected to each specific piece of equipment/panel/switchboard it was specified to protect, yet damage still occurred.

The end result is time wasted and overall frustration at all levels. To top it off, many Mechanical, Engineering, Plumbing (MEP) firms throughout the U.S. offer some sort of commissioning of the systems they design. However, many more simply cannot offer this service for a variety of reasons from manpower/staff, to economic reasons, to simple geographic location issues.

This is where
Surge Suppression Incorporated®
can help!

Continued...

Surge Suppression Incorporated® recognized this problem many years ago. Since then, we have been 'hands-on' in assisting Consultants, Owners and Contractors to ensure three very specific, yet vitally critical things are being accomplished:

1. Each individual SPD model number specified is installed and connected to each individual piece of equipment/panel/switchboard it was specified to protect.
2. Each SPD is installed in the most effective location, i.e. as close to the protected load as possible for all phase, neutral and ground wires.
3. Each SPD is installed correctly with all wires as short and straight as possible, no sharp bends, 90-degree angles, extended leads, etc. Each SPD is installed in strict accordance with the provided installation instructions from the manufacturer, the written specification, as well as the NEC.

With regard to our guide form specifications that we provide Consultants throughout the world, we have added the very much needed language that covers all of the bases above. It also protects the Consultant and the Owner, specifically placing the responsibility squarely on the shoulders of the Installer/Contractor, where it should be.

This language also mandates that the Consultant will not sign off on the project until he receives written notification from the manufacturer stating that all pertinent criteria in the specification have been satisfied.

Because **SSI** has a vested interest (25 yr warranty) in assuring that the system is installed and working properly, the cost associated with this requirement is not intended to generate revenue. Rather, it is solely priced on a cost-plus basis for the personnel to travel to the site, walk-through and inspect the system and make

recommendations of any deficiencies noted to be corrected. Any subsequent visit costs to re-inspect for written engineering confirmation are 100% the responsibility of the installer/Contractor on a cost-reimbursable basis.

It is also recognized by **SSI** that it is not always an option, or a necessity to do this on every project, due to project size, geographic location, costs, etc. In recognizing this, there are two different yet equally important options from which the Consultant/Owner can select when designing the system.

For ease of review, all notes referred to are provided below:

ENG. NOTE: Select Paragraph A for small projects with minimal SPD devices. Select Paragraph B for large projects with numerous (10 or greater) SPD devices.

A. The surge protection installation shall be certified by a licensed electrician that the installation is in accordance with the manufacturer's recommendations, [NEC][CEC] requirements and the requirements of the specification above. Any deficiencies noted shall be corrected by the Contractor. Provide written documentation of this inspection as part of the closeout documents/manual.

B. The surge suppression installation must be inspected and certified by a factory-trained representative of the SPD manufacturer. In completing this start-up, the factory-trained inspector shall furnish the Engineer with a letter/report stating that all devices are the correct specified model numbers, in the correct locations and designations, and installed in strict accordance with the intent of this specification and the requirements of the manufacturer. The Contractor must make the manufacturer aware of the available dates to perform this inspection and must give at least 45 days notice of the required deadline date. The cost for this service must be included in the package price of the SPD device and is to be part of the construction bid package. The inspection will include one on-site visit and inspection accompanied by the report as stated above. Subsequent visits to correct problems created by the installer and not in accordance with the intent of the requirements of this specification and the installation instructions furnished by the manufacturer as noted in the report will be the ultimate responsibility of the Contractor and will be billed on a time and travel reimbursable basis until the Engineer receives final satisfactory certification from the manufacturer of the specified system.