Third Edition: ANSI/UL 1449-2006 Standard for SPDs (known as 1449 Third Edition)

And What It Means To You

On **September 29, 2009** the Third Edition of the UL1449 Standard will go into effect. It is no longer just a UL Standard, it is now an ANSI/UL Standard and its proper name is ANSI/UL 1449 - 2006.

You will find some significant changes in the new version and it will almost certainly require revision of existing engineering specifications that are written to the current UL 1449 (Second Edition) standard. There is a letter that is being distributed by a competitor of ours which flatly states that Third Edition listed products can't meet existing specs. This is not exactly true. Depending on how the spec. is written, it is very possible for a Third Edition listed product to meet an existing spec. If you have any doubts or questions on the issue, we invite you to call us and let us assist you. SSI has the answers you need; so, give us a call and we will be happy to discuss your particular issues and requirements with you. ***After all, surge suppression is what we do and we do it well.***

For those of you who use Surge Suppression Incorporated® products regularly, rest assured that SSI will have a complete line of products listed to the ANSI/UL 1449-2006 (Third Edition) standard. The exact date for release of these products has not as yet been determined, but you will be notified. You may also be assured that we will take care of you through the change and will not leave you "holding the bag" in the transition or put you in a position where prices are "jacked up" because the job was written and quoted based on the current revision of UL 1449 2nd Edition.

Some of the details of the new standard (ANSI/UL1449 - 2006) are as follows:

- **Changes in terminology:**
  - No longer will surge suppression products be referred to as TVSS devices but now they will be call **Surge Protective Devices (SPD's).**
  - The term Suppressed Voltage Rating (SVR) now becomes **Voltage Protection Rating (VPR)** and is determined by tests conducted using a different waveform (6 kV/3 kA Combination wave) at a different level than in the second edition (6 kV/ 500 A Combination wave).
- There is also a new term to which we are going to have to pay particular attention. That term is **"Nominal Discharge Current"** and it is listed on spec. sheets as **"I_n"**. This rating will also be required on the product label. The test is performed in conjunction with the VPR test and basically it is a test demonstrating an amount of current that a SPD can tolerate on a repetitive basis and still survive and function properly. There are several different current levels

to which the manufacturer may have the test performed based on the SPD Type. These levels start at 20kA and 10 kA (for Type 1 devices) and down to 3 kA for Type 2 devices. Type 3 devices do not undergo the Nominal Discharge Current Test, unless they are tested as a Type 2 device. ***Please DO NOT confuse this term with "Peak Surge Current". They are totally different terms in both definition and purpose.***

- **SPD Types:** ANSI/UL 1449-2006 introduces various "types" of SPD. Briefly stated,
  - **Type 1 SPD:** is an SPD that is applied to the Line side of the main overcurrent protective device. These also include watt hour meter type of suppression devices. Type 1 devices may also be applied on the Load side of the main overcurrent protective device.
  - **Type 2 SPD:** is an SPD that is applied to the Load side of the main overcurrent protective device. Practically speaking, these are the permanently connected devices that are now reflected in UL 1449 2nd Edition.
  - **Type 3 SPD:** is an SPD that is a cord connected or directly connected plug in type of device.
  - **Type 4 SPD:** is a component level SPD or a partial assembly SPD which is tested in accordance with the location to which it is to be applied (Type 1,2,3).

One of the main reasons for the new standard, revolves around the Secondary Surge Arrester. Prior to ANSI/UL 1449-2006, Secondary Surge Arresters were tested only in accordance with the guidelines of IEEE C62.11. Effective September 29, 2009, those devices that are manufactured as a listed device MUST be listed as a Type 1 device under ANSI/UL 1449-2006. This is particularly important when specifying for UL Certification of lightning protection systems.

As you can see, these changes can have a significant effect on surge suppression specifications and how they are written in the future. SSI is here to assist you, in any way possible, to assure that you get what is specified and what meets the needs of your clients.

For more information or assistance please contact your local Surge Suppression Incorporated® representative or contact us at

888-987-8877.