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# Electrical Connections

For regulatory authorities in the electrical inspection community.

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## Question and Answer: SPD Update – New Requirements for 2008

My jurisdiction recently adopted the 2008 edition of the National Electrical Code® (NEC®). During my review of the 2008 NEC changes, I noticed that surge arresters, over 1 kV, are now required to be listed in NEC Section 280.5. Can you tell me what standards UL uses to evaluate these products and where they can be found in UL's White Book?

Surge arresters are covered by two different standards, depending on their intended use. There were several significant changes made to the 2008 NEC with respect to surge arresters and transient voltage surge suppressors (TVSSs). UL posted an early review of the proposed changes in our February 2007 edition of "The Code Authority – Electrical Connections" newsletter, which can be viewed at [www.ul.com/tca/ec/february07.pdf](http://www.ul.com/tca/ec/february07.pdf).

NEC Article 280 now covers surge arresters rated over 1 kV, while Article 285 covers surge-protective devices (SPDs) rated 1 kV or less. SPDs may be either Type 1 (previously called surge arresters) or Type 2 and 3 (previously called transient voltage surge suppressors), permanently installed on premises wiring systems. Products

covered by NEC Articles 280 and 285 are both required to be listed. This requirement for listing is new to Article 280, and provides a basis for acceptance of the surge arrester by the Authority Having Jurisdiction (AHJ).

Metal-oxide surge arresters intended for use in accordance with NEC Article 280 are investigated using ANSI/IEEE C62.11, "Standard for Metal-Oxide Surge Arresters for AC Power Circuits (>1 kV)." All other types of surge arresters intended for use in this application are investigated to IEEE C62.1, "Standard for Gapped Silicon-Carbide Surge Arresters for AC Power Circuits." Surge protective devices intended for use in accordance with NEC Article 285 are investigated using the third edition of

ANSI/UL 1449, Standard for Safety for Surge Protective Devices. The new "Surge Protective Devices" terminology and "Type" marking requirements in this standard have a future effective date of September 29, 2009. However, for compliance with the 2008 NEC, there are several manufacturers that have UL Listings using the new requirements and these are covered under the product category for Surge Protective Devices (VZCA).

For more information on surge arresters over 1 kV and SPDs, contact Joseph Degregoria in Melville, N.Y., at +1-631-271-6200, ext. 22801, or at [Joseph.P.Degregoria@us.ul.com](mailto:Joseph.P.Degregoria@us.ul.com).

UL Guide Information for these products is available as follows:

NEC Article	UL Product Category	Category Code	2007 UL White Book Page
280	Surge Arresters 1000 Volts and Higher	VZQK	318
285	Surge Protective Devices	VZCA	318

Guide Information is also available on UL's Online Certifications Directory at [www.ul.com/database](http://www.ul.com/database)

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