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Reference Number: CERT-46 Original Issue Date: September 13,1996 Revision Date: April 19, 2007

CERTIFIED TEST ABSTRACT

Dielectric -- Radio Influence Voltage

TYPE OF EQUIPMENT

S&C Fuse Cutout — Type XS — Outdoor Distribution — Overhead Pole-Top Style, with the following mounting configuration, catalog number, and ratings:

Catalog		kV	kV
Number	Style*	Max.	BIL
89021R10	EHD	15	110
89031R10	UHD	15	110
89071R11	EHD	15	110
89221R10	DISC	15	110

*EHD = Extra-Heavy Duty *UHD = Ultra-Heavy Duty

*DISC = Disconnect

APPLICABLE TEST SPECIFICATIONS

Test procedure in accordance with ANSI/IEEE C37.41-1994, IEEE Standard Design Tests for High-Voltage Fuses, Distribution Enclosed Single-Pole Air Switches, Fuse Disconnecting Switches, and Accessories, and ANSI C37.42-1989, Distribution Cutouts and Fuse Links — Specifications.

TEST RESULTS

S&C Test Reference Number: 8796, 13320

The device tested was Type XS Fuse Cutout Catalog No. 89021R10. All of the devices listed under Type of Equipment utilize the same mounting. The fuse tubes and blades are interchangeable. Radio-influence behavior of the mounting is unaffected. The components used at both S&C Electric Company, Chicago, and S&C Electric Company, Suzhou, come from the same, or identically qualified suppliers, and the internal quality requirements are identical. Engineering experience and judgement, along with the testing shown in this

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document, dictate that Type XS Fuse Cutouts will meet the requirements of the applicable standards regardless of the location of assembly.

Refer to the following tables, "Summary of Radio-Influence Voltage Test Results."

Table 1: Summar	y of Radio-Influence-V	Voltage Test Results,	Chicago Assembly

TEST CONFIGURATION	60 Hz TEST VOLTAGE кV	AMBIENT RIV AT 1 MHz μ VOLTS	TOTAL RIV AT 1 MHz μ VOLTS
Cutout closed			
Upper terminal energized	9.6	5.2	5.3
Rear insert grounded			
Cutout open			
Upper terminal grounded	9.6	5.2	5.3
Hinge terminal energized			
Rear insert floating			
Cutout open			
Upper terminal energized	9.6	5.2	5.3
Hinge terminal grounded			
Rear insert floating			

Table 2: Summary of Radio-Influence-Voltage Test Results, Suzhou Assembly

TEST CONFIGURATION	60 Hz TEST VOLTAGE KV	AMBIENT RIV AT 1 MHz μ VOLTS	TOTAL RIV AT 1 MHz μ VOLTS
Cutout closed			
Upper terminal energized	9.7	0.001	0.001
Rear insert grounded			
Cutout open			
Upper terminal grounded	9.7	0.001	0.001
Hinge terminal energized			
Rear insert floating			
Cutout open			
Upper terminal energized	9.7	0.001	0.001
Hinge terminal grounded			
Rear insert floating			

- 1. A 60-Hz test voltage of 9.6 kV was chosen; this value exceeds the 9.41 kV test voltage requirement of ANSI C37.41.
- 2. ANSI C37.42 specify a maximum RIV of 250 μ V at 1 MHz for all voltage ratings.
- 3. Ambient RIV is the measured voltage at 1 MHz in the test area with the fuse unenergized; total RIV is the measured voltage at 1 MHz with the fuse energized at the given test voltage and includes the ambient RIV.

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STATE OF ILLINOIS)

COUNTY OF COOK

Michael G. Ennis, being sworn, states that: He is Manager — Engineering — Fuse Products Division of S&C Electric Company and is authorized to execute this certificate on its behalf; and said tests were conducted in the manner above set forth, and the results are accurately reported above.

Subscribed and sworn to before me this <u>1974</u> day of <u>APR14</u> 2007.

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Affixed hereon is my Cook County, Illinois Notary Public Seal S&C ELECTRIC COMPANY

by

Michael G. Ennis Manager — Engineering Fuse Products Division