



FORELL/ELSESSER ENGINEERS, INC.
Structural Engineers

August 7, 2014

Michael Lafond
Systems Manager
General Electric
41 Woodford Avenue
Plainville, CT 06062

Re: GE Low Voltage Switchgear
ASCE 7-10, 2012 IBC, and IEEE-693-2005 Seismic and Special Seismic Certification

Forell/Elsesser has reviewed shake table test reports 8001, 8055, 8387, and 8916 prepared by Clark Testing Laboratory and test report 53022-1 prepared by Wyle Laboratories, which summarizes testing for the GE Low Voltage Switchgear. The testing was performed according to both the requirements of ICC-ES AC156 and IEEE-693-2005 and demonstrated that the equipment satisfied testing requirements for $I_p=1.5$, Site Class D, $a_p=2.5$, $R_p=6.0$, and $Z/h = 1.0$. In accordance with ASCE 7-10, which contains the seismic provisions of the 2012 International Building Code [IBC], AC156 is an acceptable test procedure for determining the seismic certification of equipment. ASCE 7-10, Section 13.2.1.2.b allows for testing alone to be used to satisfy all IBC seismic design requirements for electrical equipment.

Using AC156 procedures, F/E determined that the test results demonstrate the adequacy of the GE Low Voltage Switchgear up to the peak ground seismicity (S_{DS}) in the table below. Therefore, F/E concludes that the test data demonstrates that the GE Low Voltage Switchgear are certified for installation in accordance with the seismic provisions of the 2012 IBC for any site with a site-specific S_{DS} equal or less than the attached S_{DS} table and at any location within a building.

AKD-10, AKD-20, Entellisys Low Voltage Switchgear, and Powerbreak II & AV3						
	Dimensions (min-max)			Max. Weight	$S_{DS}(g)$	IEEE-693 Seismic Level
	Width	Depth	Height			
Powerbreak II & AV3	15"-22"	30"-50"	78"-104"	2,129 lbs	1.67	High
Entellisys Remote Control Stack	30"	30"	92"	1,100 lbs	1.67	High
AKD-10 Low Voltage Switchgear and Entellisys Version of AKD-10	15"-67"	60"-83"	78"-112"	4,250 lbs	1.58	High
AKD-20 Low Voltage Switchgear and Entellisys Version of AKD-20	15"-67"	54"-83"	78"-112"	4,250 lbs	2.31	High

Notes:

1. Enclosures are indoor (NEMA-1) or outdoor (NEMA-3R) enclosures
2. Dimensions are for individual sections. Sections may be installed alone or bayed together.
3. Maximum height does not include 15"-high or 12"-high drip roof
4. All enclosures are rigid floor mounted

Should you any questions or need further information please do not hesitate to contact us.

Thank you.

Sincerely,

FORELL/ELSESSER ENGINEERS, INC.

Marco Scanu, SE #4454
Principal

