



Royal Switchgear Manufacturing Co.

May 4th, 2015

To our valued customers:

This letter is to advise that Royal Switchgear has tested and passed IEEE 693 HIGH shaker-table testing for its vertical break switch.

Some exciting facts from testing:

- The tested switch was a 230kV 3000A switch with 1050kV BIL insulators and grounding switch. TR-312 insulators were used to create a "worst case scenario" for testing.
- By testing the "worst case" at 230kV, this enables Royal to be qualified in essentially every 230kV and 161kV seismic zone scenario.
- This is the first shaker-table test ever performed using the 230kV PG&E vertical break support structure.
- Royal can, if required, supply the switch and structure that were seismically qualified together.
- The test was conducted at the University of Buffalo lab in New York with the supervision of W.E. Gundy & Associates, Inc. (WEGAI).
- WEGAI is internationally known for exceptional analysis with focus in seismic qualification and design of electrical substation transmission and distribution equipment and building electrical-mechanical test equipment.
- This is the tallest structure WEGAI has ever seen used for a 230kV shaker-table test.
- Photo of the test is on the following page.

Please let us know if you have any questions or comments! Thank you!

Best regards,

Bill Lichtner
Regional Sales Manager
Royal Switchgear Manufacturing Co.
Ph - (205) 426-4090
Cell - (256) 655-7421
blightner@royalswitchgear.com

