Switching Capability of Rollout or Tiltout Carriages

December 3, 1991

We are often asked about the switching capability of the rollout or tiltout carriages used in medium voltage switchgear to mount voltage transformers, small control power transformers, and fuses for larger control power transformers. This question usually takes the form "How large a CPT can you handle with fuses mounted in a rollout or tiltout?"

There is no industry standard to measure this switching capability, and no test data is available to certify this performance. The switching capability will vary with the details of the design, and to some extent will depend on the operator, since the speed of opening a rollout or tiltout depends on the individual opening the device.

Within these restraints, however, our experience with 5 kV and 15 kV equipments over the years has led us to adopt the following limits:

- Voltage transformers: A set of three wye connected VT's or two open delta connected VT's can be switched with a rollout or tiltout without any interlocking of the secondary circuit.

- Control power transformers: A CPT up to 50 kVA single phase or 75 kVA three phase can be switched with a rollout or tiltout provided the carriage is interlocked so that the CPT must be unloaded before opening the primary device. The CPT may be mounted on the rollout or tiltout, or the rollout or tiltout may contain only the fuses for a stationary mounted CPT. Larger CPT's must be switched with some other mechanism, such as a load break disconnect switch.

- Capacitors: Rollouts or tiltouts must not be used to switch capacitors.

Any other application should be reviewed by Powell's engineering department.

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