

FIRST HILL VACUUM SWITCH

1. Scope

This construction standard provides the requirements for the installation of a vacuum switch **only** in the First Hill network.

2. Application

This document provides direction to SCL crews about how to properly install a vacuum switch and associated accessories in an existing network vault.

3. Construction Notes

- 3.1 For equipment details and assembly diagrams, refer to engineering drawings listed in references.
- 3.2 Manual switch is to be located near the base of the vault opening so that it can be operated from outside the vault using a hot stick.
- 3.3 Maintain minimum required installation distances from walls as shown in figures 6.1 and 6.2.
- 3.4 Install new current transformers (CTs) on cables coming from the overhead source.
- 3.5 Neutrals of primary cables do not go through CTs for relays.

4. References

Li, John; SCL Engineer, subject matter expert (john.li@seattle.gov)

Lu, Curtis; SCL Standards Engineer, and originator for 1252.10 (curtis.lu@seattle.gov)

NTP-123; "Digitalgrid NCS Transmitter Installation, Network Protectors"; Construction Guideline; SCL

D-44801; "26.4kV Vacuum Switch without UPS AC/DC Elementary"; SCL Drawing

D-44802; "SEL-351A Relay without UPS Relay Key Drawing"; SCL Drawing

D-44803; "Relay Enclosures without UPS Panel Arrangement"; SCL Drawing

D-44804; "Relay Enclosures without UPS Connection Diagram"; SCL Drawing

5. Material List

Item No	Qty	Item	Description	Stock No.
1	1	ENCLOSURE, type 4X	custom built enclosure by SCL Steel Shop	none
2	1	SWITCH, 27 kV Interrupt	Cooper Vacpac 21VP-125-66-12, 27kV 600A continuous current 12ka interrupting current	012989
3	3	CURRENT TRANSFORMERS for relays	ABB type RLC 600/1200:5 Ratios; C100/C200 accuracy. Cat #7524A52G10	none
4	3	CURRENT TRANSFORMERS for telemetering	existing ones may be used for new installations	none
5	1	DIGITALGRID NCS TRANSMITTER remote monitoring system (transmitter and CTs)	see Construction Guideline NTP-123 for details	none
6	1	SCHWEITZWER DISTRIBUTION PROTECTION RELAY	SEL-351A type 0351A00Y2355421 conformal coating, rack mounting, 48/125 Vdc or 125 Vac, 125 Vdc control import, DNP 3.00 LVL 2 slave	none

<i>standards coordinator</i>	<i>standards manager</i>	<i>unit director</i>
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6. Figures

Figure 6.1,
plan view

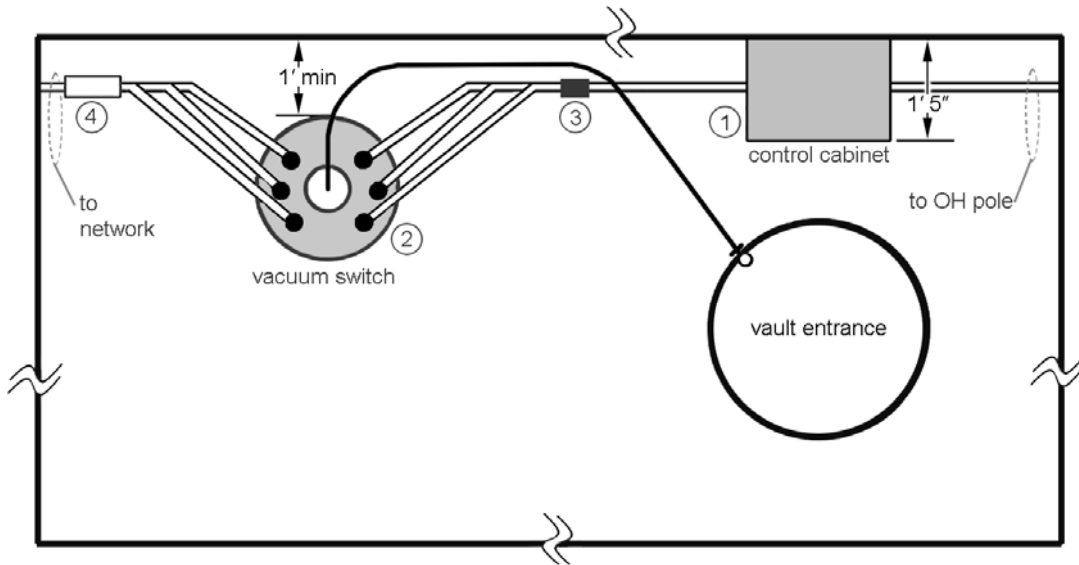


Figure 6.2,
elevation view

