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**NAVY PUBLIC WORKS CENTER  
NORFOLK, VIRGINIA  
UTILITIES DEPARTMENT**

**STANDARD OPERATING PROCEDURE / JOB HAZARD ANALYSIS**

**TITLE**

**REPLACE AIR PRESSURE GAUGE OF  
34.5 KV OCB/SF6 CIRCUIT BREAKER**

**PROCEDURE NUMBER  
WC 622 HVE 036**

**SIGNED: \_\_\_\_\_ (DATE)**

**APPROVED: \_\_\_\_\_ (DATE)**

**SAFETY PROFESSIONAL: \_\_\_\_\_ (DATE)**

**MANAGEMENT OFFICIAL: \_\_\_\_\_ (DATE)**

**REVISION**

**A**





## REPLACE AIR PRESSURE GAUGE OF 34.5 KV OCB/SF6 CIRCUIT BREAKER

### **Purpose:**

Procedure to replace an air pressure gauge on a 34.5 kv oil, or SF6, circuit breaker.

### **Potential Energy Sources:**

1. High pressure air
2. 120/240 AC control voltages
3. 125 DC control voltage
4. Breaker Operating Mechanism

### **Tools and PPE:**

Tools: Various hand tools. PPE: Safety shoes, Nomex coveralls, hard hat, safety glasses, and work gloves.

### **References:**

1. PWC Occupational Safety and Health Program Manual, PWCNORVAINST 5100.33E
2. Occupational Safety and Health Standards for General Industry (29 CFR PART 1910): Subpart I, Personnel Protective Equipment
3. SOP WC 622 HVE 013, Hazardous Energy Control(Lockout, Tagout)

### **Procedures:**

1. Tag out breaker control handle located in the switchyard, or substation, control house. Follow SOP WC 622 013, Hazardous Energy Control(Lockout, Tagout).
2. Secure the control voltages in the breaker's control cabinet. The AC and DC power to the breaker controls, the heaters, and the air compressor should be turned off. Using a Multimeter test the circuits to verify they are deenergized.
3. Bleed the air pressure from the air compressor's air receiver located in the breaker control enclosure.
4. If the breaker is in the closed position, insert the blocking pin in the breaker's trip mechanism as per manufacture's instructions.
5. Remove hardware securing air pressure gauge and unscrew the gauge from the air supply tubing.
6. Obtain a new air pressure gauge. Apply teflon tape to the gauge's threads and install the device using the hardware removed per Step 5.
7. Close the air receiver's bleed down valve.
8. Reenergize the breaker's controls, AC and DC; heaters; and air compressor.
9. Observe that the air compressor cuts on and charges the pneumatic system to the proper air pressure. Check for air leaks at the air pressure gauge.

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10. Remove the blocking pin from the breaker's trip mechanism.
11. Following SOP WC HVE 013, remove the Danger Hold tag to place the breaker back in service.

END