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

**STANDARD OPERATING PROCEDURE / JOB HAZARD ANALYSIS**

**TITLE**

**REPLACE AIR COMPRESSOR DRIVE MOTOR OF  
34.5 KV OCB/SF6 CIRCUIT BREAKER**

**PROCEDURE NUMBER  
WC 622 HVE 023**

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

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

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

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

**REVISION**

**A**





REPLACE AIR COMPRESSOR DRIVE MOTOR OF  
34.5 KV OCB/SF6 CIRCUIT BREAKER

**Purpose:**

Procedure to replace an air compressor drive motor 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, 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. Check with a voltage tester to verify that the control voltages are secured.
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. Take off the compressor's drive belt.
6. Remove motor connection box cover and disconnect motor from it's feeder wires.
7. Remove motor mounting bolts and then remove the motor.
8. Take drive belt pulley off old motor and place on the replacement motor.
9. Install new motor and secure with mounting bolts.
10. Reconnect motor's feeder wires and ensure connection box cover is on and secured.
11. Put compressor drive belt back in place and tighten properly.

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12. Close the air receiver's bleed down valve.
13. Reenergize the breaker's controls, AC and DC; heaters; and air compressor.
14. Observe that the air compressor cuts on and charges the pneumatic system to the proper air pressure.
15. Remove the blocking pin from the breaker's trip mechanism.
16. Following SOP WC HVE 013, remove the Danger Hold tag to place the breaker back in service.

END