

# THE High Voltage Service ELECTRICAL EQUIPMENT CONDITION ASSESSMENT Checklist

Customer: \_\_\_\_\_ Location: \_\_\_\_\_

Contact: \_\_\_\_\_ Email address: \_\_\_\_\_

Date: \_\_\_\_\_

## PREVENTIVE MAINTENANCE

1. Do you currently have a maintenance plan?
2. Do you currently have a maintenance budget?
3. When does your maintenance work have to be performed?
4. Do you perform infrared inspection annually?

### Power Transformers

1. Oil Filled, Dry or Both?
2. Oil Testing Annually?
3. Electrically tested and inspected every 3 to 5 years?
4. Power Factor, TTR and Megger testing performed every three years?
5. Equipment grounding is tested every 5 years?
6. Transformers are free from corrosion and leak free?
  - a. Number of transformers?

|     |    |
|-----|----|
| Yes | No |
| Yes | No |
| Yes | No |
| Yes | No |
| Yes | No |

### Medium Voltage Circuit Breakers or Disconnects

1. Equipment grounding is tested every 5 years?
2. Electrical equipment is free from corrosion?
3. Equipment tested every 3 to 5 years?
  - a. Number of breakers?
  - b. Number of relays?
  - c. Number of disconnects?

|     |    |
|-----|----|
| Yes | No |
| Yes | No |
| Yes | No |

### Low Voltage Power Circuit Breakers

1. Equipment grounding is tested every 5 years?
2. Electrical equipment is free from corrosion?
3. Tested every 3 to 5 years?
  - a. Number of breakers 1600 amp or greater?
  - b. Number of breakers 600 to 1599 amp?
  - c. Number of breakers less than 600 amp?
4. Ground fault protection tested every 3 to 5 years?
5. Substation free of debris and obstacles?

|     |    |
|-----|----|
| Yes | No |
| Yes | No |
| Yes | No |

  

|     |    |
|-----|----|
| Yes | No |
| Yes | No |

**Fused Disconnect Switches**

1. Equipment grounding is tested every 5 years?
2. Electrical equipment is free from corrosion?
3. Tested every 3 to 5 years?
4. Ground fault protection tested every 3 to 5 years?

Yes\_\_\_ No\_\_\_  
Yes\_\_\_ No\_\_\_  
Yes\_\_\_ No\_\_\_  
Yes\_\_\_ No\_\_\_

**Motor Control Centers (MCC's)**

1. Equipment grounding is tested every 5 years?
2. Electrical equipment is free from corrosion?
3. Tested every 3 to 5 years?
  - a. Number of starters (breaker)
  - b. Number of starters (fused)

Yes\_\_\_ No\_\_\_  
Yes\_\_\_ No\_\_\_  
Yes\_\_\_ No\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Generators and Transfer Switches**

1. Emergency Generator(s) condition is inspected and operational testing done monthly and recorded?
2. Automatic Transfer Switch operation and Inspection performed?

Yes\_\_\_ No\_\_\_  
Yes\_\_\_ No\_\_\_

**Power Factor Correction Capacitors**

1. Capacitor integrity verified?
2. Power Factor over .90?

Yes\_\_\_ No\_\_\_  
Yes\_\_\_ No\_\_\_

**Equipment Grounding is verified**

1. Equipment Grounding is verified every 5 years?

Yes\_\_\_ No\_\_\_

**ENGINEERING DOCUMENTATION**

1. One-Line Diagram Exists
2. Is the One-Line Diagram mounted in the Substation

Yes\_\_\_ No\_\_\_  
Yes\_\_\_ No\_\_\_

**ARC FLASH HAZARD ANALYSIS**

Arc Flash/Shock Hazard labels installed on all electrical equipment

Yes\_\_\_ No\_\_\_

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

1. Uniform material type
2. Has appropriate Arc Flash Equipment (PPE) for switching
3. Has appropriate Shock Hazard Equipment (PPE) for switching

\_\_\_\_\_  
Yes\_\_\_ No\_\_\_  
Yes\_\_\_ No\_\_\_

**E. SAFETY TRAINING**

1. Persons Who Operate/Maintain Electrical Equipment are Trained for the Voltage-Class Equipment they Operate/Maintain

Yes\_\_\_ No\_\_\_