



Apprentice Name: \_\_\_\_\_

### Step 3 - Apprentice Substation Technician Job Competency / Demonstration Form

| COMPETENCIES/SKILLS |  | RATING |
|---------------------|--|--------|
| #1                  | Explain the routine tests that should be performed on a new power transformer before putting the unit in service.  |        |
| #2                  | Explain the tests used to determine if the moisture level inside transformer's solid insulation systems is within accepted limits, or vacuum drying should be performed. |        |
| #3                  | Explain how to check moisture level in a power transformer using a dielectric oil test set.  |        |
| #4                  | Explain how to process transformer oil using filter press equipment.   |        |
| #5                  | Explain the internal parts found in a voltage regulator and describe their function.   |        |
| #6                  | Explain the basic settings on a control panel for a voltage regulator.   |        |
| #7                  | Explain how to put a voltage regulator in service and how to safely take it out of service   |        |
| #8                  | Explain how to make sure a regulator is in " <u>neutral</u> " position.  |        |
| #9                  | Explain how to perform an inspection on a voltage regulator.   |        |
| #10                 | Explain the difference between bracket grounding and equipotential grounding.  |        |
| #11                 | On a de-energized system and under supervision demonstrate installation and removal of personal protective grounds.  |        |
| #12                 | Demonstrate how to correctly inspect personal protective grounds.  |        |
| #13                 | Explain step and touch potential.  |        |
| #14                 | What test should be performed on current transformers during acceptance testing?   |        |
| #15                 | Explain how to demagnetize a current transformer.  |        |
| #16                 | Explain/demonstrate how to read the nameplate data on a current transformer.   |        |
| #17                 | Demonstrate how to inspect and clean a live-line switch stick.   |        |
| #18                 | On a de-energized substation and under supervision: open and close a group operated air break switch.  |        |
| #19                 | On a de-energized substation and under supervision: open and close regulator switches.   |        |
| #20                 | On a de-energized substation and under supervision: open and close feeder recloser source, load and transfer bus disconnect switches.                                    |        |
| #21                 | Ability to follow directions.  |        |
| #22                 | Positive attitude toward work and others.  |        |

**RATINGS:**

Exceeds Expectations

Meets Expectations

Below Expectations

COMMENTS/REMARKS

I find this apprentice competent in the skills listed above and ready to advance to the next level.

Supervisor's signature: \_\_\_\_\_ Date: \_\_\_\_\_