



Apprentice Name: _____

Step 8 - Apprentice Substation Technician Job Competency / Demonstration Form

COMPETENCIES/SKILLS		RATING		
		Please circle		
#1	Pick one of your utility's substations: List the installed devices that automate its operation and explain how the automation is being used.	1	2	3
#2	Describe the procedure to test current and potential transformers located both off and on equipment.	1	2	3
#3	Explain the importance of substation one-lines, equipment manuals, and wiring diagrams.	1	2	3
#4	Pick one of your substations: List (using IEEE Standard C37.2-2008 Device Numbers) the types of relays used in the protection scheme and explain the function of each relay.	1	2	3
#5	For a power transformer: List the tests normally performed to ensure the integrity of the transformer and describe the purpose of each test.	1	2	3
#6	For a circuit breaker: List the tests normally performed to ensure the integrity of the breaker and describe the purpose of each test.	1	2	3
#7	OSHA 1910.269 (O) - Testing and Test Facilities. This OSHA regulation should be reviewed by everyone involved in performing electrical tests on substation equipment. This regulation deals with work practices to be used during the testing of substation equipment using high-voltage or high-power equipment. List at least 5 of the work practices in the regulation.	1	2	3
#8	Obtain a copy of a substation power transformer nameplate. Make sure that the power transformer has both a non-load tap changer and a load-tap changer. Demonstrate your knowledge by explaining all the information contained on the nameplate	1	2	3
#9	Explain what transformer impedance is. Explain why transformer impedance is important.	1	2	3
#10	Based on the CT construction, two types of CT's can be identified. What are the two types of CT?	1	2	3
#11	Ability to follow directions.	1	2	3
#12	Positive attitude toward work and others.	1	2	3

RATINGS:

1. Exceeds Expectations
2. Meets Expectations
3. Needs Improvement

COMMENTS/REMARKS
<p>I find this apprentice competent in the skills listed above and ready to advance to the next level.</p> <p>Supervisor's signature: _____ Date: _____</p>