

The following needs to be reviewed/decided by JATC then submitted to RA for approval

## **ADDENDUM**

**SUBSTATION **TECHNICIAN**(Electrician or Mechanic)  
APPRENTICE PROGRAM**

## **SUB-STATION TECHNICIAN APPRENTICE PROGRAM**

(Electrician, Substation)

O\*NET SOC Code: 49-2095.00

RAPIDS Code: 0166

### SCHEDULE OF WORK EXPERIENCE

In order to acquire the necessary skills of the trade in its various categories, the Sub-station Technician Apprentice shall (as near as possible) be provided with employment in the following categories and amounts:

#### **SUB-STATION CONSTRUCTION AND MAINTENANCE**

- |    |   |             |
|----|---|-------------|
| A. | <b>GROUNDING</b><br>Construction of protective grounding grid for electrical systems, controls, cabinets, transformers, control houses, fences and steel structures.  | 500 hours   |
| B. | <b>FOUNDATIONS</b><br>Installing foundations and bases for control cabinets, transformers control houses and steel structures. All digging, trenching, rebar construction, utility location and conduit installations. (includes pole boxes and manholes) | 500 hours   |
| C. | <b>FENCE</b><br>Layout and build protective parameter and/or security fence for sub-station and public protection. Knowledge and understanding of minimum approach distance while work in the vicinity of energized circuits.                             | 250 hours   |
| D. | <b>LAYOUT</b><br>Plan and layout work from blue prints, diagrams or utility specification sheets.   | 750 hours   |
| E. | <b>WIRING</b><br>Cable pulling, coding, wiring and terminating of cables for electrical systems, control monitoring and communication within the sub-station and outside sources.   | 1,000 hours |
| F. | <b>STEEL ERECTION</b><br>Erection of steel support structures for high voltage electrical apparatus and construction of steel control houses for monitor and switching.   | 1,000 hours |

G.	<b>TRANSFORMERS</b> Installation, connection and service of sub-station transformers and circuit breakers for maintenance and new construction.	500 hours
H.	<b>BUS INSTALLATION</b>	
1.	<b>CONDUIT/BUS</b> Bending and installation of isolated high voltage pipe or bus for distribution connections within sub-station between transmission lines, distribution lines and transformers.	500 hours
2.	<b>STRAIN BUS</b> Installation of suspended wire used as bus for distribution connections within sub-station between transmission lines, distribution lines and transformers.	500 hours
3.	<b>BUS WELDING</b> Welding of conduit used as bus for circuit connections within sub-station. Welding of various materials and welding techniques uses in different applications.	500 hours
I.	<b>SWITCHES - INSTALLATION AND ADJUSTMENT</b> Assembly of switching gear for transmission and distribution of high voltage.	1,000 hours
	TOTAL	7,000 hours

#### RELATED INSTRUCTION

- A. Each apprentice shall be required to complete three years of related instruction away from the job for a minimum of 144 hours per year. The minimum related course of study shall be that compiled by the AJATC.
- B. The time spent in related instruction shall be in addition to the required 7000 hours of “on-the job” training, and shall not be considered hours of work.
- C. When the related instruction is given in a classroom, the Committee shall secure competent instructors whose knowledge, experience and ability to teach shall be carefully examined. When possible, the instructor shall take such teacher training courses as are available from the NJATC or others.
- D. The Committee shall secure course material made available through the NJATC and other material and equipment as deemed necessary by the AJATC.

- E. Periodic examinations shall be administered and properly supervised with the results reported to the Committee so that the apprentice's progress may be evaluated and corrective measures applied where necessary.

## WAGES

Apprentices shall be employed on a stipulated hourly wage basis, as provided in the collective bargaining agreement. The schedule of apprentice wages shall be stated in percent (%) of the journeyman rate and provide for seven periods of 1,000 hours of employment each.

Increases shall be subject to satisfactory progress on the job and in related instruction. The apprentice's wages are provided in the local labor agreement under which the apprentice is employed. Contact the Committee for information if required.

The percentage for hourly wages stated in the current collective bargaining agreement shall be:

1 <sup>st</sup> 1,000 hour period	<u>60</u> % of journeyman rate
2 <sup>nd</sup> 1,000 hour period	<u>65</u> % of journeyman rate
3 <sup>rd</sup> 1,000 hour period	<u>70</u> % of journeyman rate
4 <sup>th</sup> 1,000 hour period	<u>75</u> % of journeyman rate
5 <sup>th</sup> 1,000 hour period	<u>80</u> % of journeyman rate
6 <sup>th</sup> 1,000 hour period	<u>85</u> % of journeyman rate
7 <sup>th</sup> 1,000 hour period	<u>90</u> % of journeyman rate