

COMPETENCY-BASED OCCUPATIONAL FRAMEWORK FOR REGISTERED APPRENTICESHIP

Transmission Line Worker

ONET Code: [49-9051.00](#)

RAPIDS Code: [0282CB](#)

Created: February 2018

Updated:

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Work Process Schedule

Job Functions and Competencies

WORK PROCESS SCHEDULE		ONET Code: 49-9051.00	
Transmission Line Worker		RAPIDS Code: 0282CB	
JOB TITLE:			
LEVEL:		SPECIALIZATION:	
STACKABLE PROGRAM <input type="checkbox"/> yes <input type="checkbox"/> no			
BASE OCCUPATION NAME:			
Company Contact: Name			
Address:		Phone	Email
Apprenticeship Type: <input type="checkbox"/> Competency-Based <input type="checkbox"/> Time-Based <input type="checkbox"/> Hybrid		Prerequisites	
JOB FUNCTION 1: Prepares for work at job site with proper tools and equipment and a work plan that is sound, clearly communicated, and employs safety precautions			
Competencies	Core or Optional	RTI	OJT
A. Properly uses and maintains tools and equipment including saws, digging equipment, drills, wrenches, compressors, presses, crimpers and dies	Core		
B. Properly uses and maintains electrical measuring and testing equipment such as voltage meters, multi-meters, phase sequence indicators, etc.	Core		
C. Properly assembles and uses ropes and rigging (handlines, hoisting equipment, slings, shackles, etc.) to ensure personal safety and to move equipment and materials	Core		

D. Operates vehicular equipment properly, including trucks, diggers, and aerial lifts	Core		
E. Plans job tasks and prepares work sites properly including communicating plan to crew and identifying hazards	Core		
F. Adheres to safety requirements including safety of the site, personal safety and the safety of other workers and the community	Core		
JOB FUNCTION 2: Abides by workplace health and safety rules, regulations, policies and best practices in carrying out job duties			
Competencies	Core or Optional	RTI	OJT
A. Provides job site protection for the general public	Core		
B. Performs hazard assessment and controls powerline hazards	Core		
C. Controls environmental hazards	Core		
D. Participates in workplace safety activities	Core		
E. Utilizes personal protective devices and safety equipment properly and consistently (body harness, lanyard, anchor sling, etc.)	Core		
F. Utilizes positioning devices and equipment properly (gaff, body belt, pole-choker, secondary lanyard, etc.)	Core		
JOB FUNCTION 3: Installs electrical systems and related structures			
Competencies	Core or Optional	RTI	OJT
A. Frames and sets power poles properly	Core		
B. Installs pole guys and anchors; attachments; breakers/rods; etc.	Core		
C. Installs and assembles steel structures	Core		
D. Installs steel structure guy wires and anchors	Core		
JOB FUNCTION 4: Constructs, maintains, and repairs overhead and underground distribution assets			
Competencies	Core or Optional	RTI	OJT
Overhead			
A. Strings overhead conductors properly and safely	Core		
B. Sags overhead conductors	Core		

C. Ties-in overhead conductors	Core		
D. Splices overhead conductors	Core		
Underground			
E. Digs trenches appropriately, using correct equipment and safety precautions – direct buried cables, ducted method, surface troughs, deep bore tunnels, cut and cover tunnels	Core		
F. Selects appropriate components, cable sealants and compounds, joint bays, stop joints, water cooling systems (if applicable), using correct methods for insulating components and wires	Core		
G. Identifies environmental hazards and barriers and plans/carries out appropriate mitigation strategies	Core		
H. Identifies and mitigates land use restrictions	Optional		
I. Inspects, replaces and maintains cables and cable insulation at appropriate intervals and using correct materials and procedures	Core		
JOB FUNCTION 5: Operates, maintains, and repairs distribution and transmission systems			
Competencies	Core or Optional	RTI	OJT
A. Operates overhead and/or underground transmission systems	Core		
B. Operates overhead and/or underground distribution systems	Core		
C. Performs station switching	Core		
D. Inspects distribution and transmission systems	Core		
E. Maintains poles and steel structures	Core		
F. Maintains system components	Core		
G. Identifies and mitigates environmental hazards (i.e. tree trimming, rodent infestations, erosion, etc.)	Core		
H. Repairs overhead and/or underground distribution systems	Core		
I. Repairs overhead and/or underground transmission systems including components (cross arms, conductors, poles and insulators), switches, terminations and other devices	Core		

JOB FUNCTION 6: Finds and repairs power outages and performs emergency repairs

Competencies	Core or Optional	RTI	OJT
A. Uses appropriate personal and environmental protective devices and techniques to secure the work area and protect human safety	Core		
B. Identifies and reviews appropriate repair manuals or policies and procedures based on observed or reported fault	Optional		
C. Applies diagnostic tools and skills to identify and repair sources of fault; installs updated equipment or components; or performs preventive maintenance	Core		
D. Confirms power restoration after repairs	Core		
E. Communicates effectively with first responders, dispatchers and members of the public to coordinate activities appropriately	Optional		
F. Accurately documents work performed, equipment or parts used and notes deferred maintenance needs	Optional		

Related Technical Instruction Plan

COURSE NAME	Course Number
	Hours
LEARNING OBJECTIVES	
COURSE NAME	Course Number
	Hours
LEARNING OBJECTIVES	
COURSE NAME	Course Number
	Hours
LEARNING OBJECTIVES	
COURSE NAME	Course Number
	Hours

LEARNING OBJECTIVES

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COURSE NAME

Course Number

Hours

LEARNING OBJECTIVES

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