

Power Electrician POA (2017) Subtask to Unit Comparison

POA Subtask		Manitoba Unit(s)
Task A-1 – Performs safety-related functions.		
A-1.01	Uses personal protective equipment (PPE) and safety equipment.	A5 Residential Electrical Code
A-1.02	Maintains safe work environment.	A2 Trade Safety Awareness
A-1.03	Performs lock-out and tagging procedures.	A2 Trade Safety Awareness
A-1.04	Installs and maintains temporary protective grounds (TPGs).	A2 Trade Safety Awareness
Task A-2 – Uses and maintains tools and equipment.		
A-2.01	Maintains tools and equipment.	A2 Trade Safety Awareness
A-2.02	Uses access equipment.	A2 Trade Safety Awareness
A-2.03	Uses rigging, hoisting and lifting equipment.	A4 Trade Related Math and Science A6 Residential Wiring Practices
A-2.04	Uses technical instruments and testers.	B5 Electronic Concepts I C4 Electronic Concepts II D4 Power Electronics
Task A-3 – Organizes work and handles materials.		
A-3.01	Organizes work and uses documentation and reference materials.	A3 Computer and Communication Skills
A-3.02	Finalizes required documentation.	A3 Computer and Communication Skills
A-3.03	Fills and recovers insulating gas-filled equipment.	C6 Interrupting Equipment and Electrical Bus Networks
A-3.04	Fills and recovers insulating oil-filled equipment.	C6 Interrupting Equipment and Electrical Bus Networks
Task A-4 – Uses communication and mentoring techniques.		
A-4.01	Uses communication techniques.	A3 Computer and Communication Skills
A-4.02	Uses mentoring techniques.	A1 Learning About Work D8 Journeyman Trainer
Task A-5 – Applies knowledge and technical skills.		
A-5.01	Interprets plans, drawings and specifications.	A6 Residential Wiring Practices B2 Commercial Code Applications
A-5.02	Analyzes and troubleshoots problems.	A8 DC Circuit Analysis B3 AC Fundamentals C2 Three Phase Circuit Analysis
A-5.03	Uses computers and software.	A3 Computer and Communication Skills D3 Automation
A-5.04	Plans project tasks and procedures.	C1 Electrical Code for Industrial Applications I
Task B-6 – Analyzes system requirements.		
B-6.01	Determines operating procedures.	C3 Power Transformers
B-6.02	Performs loading calculations.	C2 Three Phase Circuit Analysis C3 Power Transformers

Task B-7 – Performs energy control.		
B-7.01	Performs high voltage switching.	C1 Electrical Code for Industrial Applications I
B-7.02	Performs low voltage switching.	C1 Electrical Code for Industrial Applications I
B-7.03	Controls mechanical systems.	C7 Governor and Excitation Equipment
Task C-8 – Installs and maintains interruptive high voltage equipment.		
C-8.01	Installs and maintains automatic circuit reclosers (ACRs).	C6 Interrupting Equipment and Electrical Bus Networks
C-8.02	Installs and maintains breakers.	C6 Interrupting Equipment and Electrical Bus Networks
C-8.03	Installs and maintains disconnects.	C6 Interrupting Equipment and Electrical Bus Networks
Task C-9 – Installs and maintains reactive high voltage equipment.		
C-9.01	Installs and maintains transformers and reactors.	B2 Commercial Code Applications C2 Three Phase Circuit Analysis C3 Power Transformers
C-9.02	Installs and maintains regulating and capacitive equipment.	B3 AC Fundamentals C2 Three Phase Circuit Analysis
C-9.03	Installs and maintains instrument transformers.	C3 Power Transformers
Task C-10 – Installs and maintains other high voltage equipment.		
C-10.01	Installs and maintains grounding systems.	C1 Electrical Code for Industrial Applications I D1 Electrical Code for Industrial Applications II
C-10.02	Installs and maintains buswork.	C6 Interrupting Equipment and Electrical Bus Networks
C-10.03	Installs and maintains lightning and surge arrestors.	C6 Interrupting Equipment and Electrical Bus Networks D5 Power Quality
C-10.04	Installs and maintains static VAR compensators (SVCs).	D4 Power Electronics
C-10.05	Installs and maintains high voltage direct current (HVDC) equipment.	D4 Power Electronics
Task D-11 – Installs and maintains low voltage distribution equipment.		
D-11.01	Installs and maintains transformers.	C3 Power Transformers
D-11.02	Installs and maintains breakers.	C6 Interrupting Equipment and Electrical Bus Networks
D-11.03	Installs and maintains buswork and load centers.	A5 Residential Electrical Code B1 Commercial Electrical Code C1 Electrical Code for Industrial Applications I C6 Interrupting Equipment and Electrical Bus Networks D1 Electrical Code for Industrial Applications II
Task D-12 – Installs and maintains other low voltage equipment.		
D-12.01	Installs and maintains metering systems.	C8 Metering
D-12.02	Installs and maintains battery banks and chargers, and power supplies.	D5 Power Quality
D-12.03	Installs and maintains cathodic protection systems.	B2 Commercial Code Applications D1 Electrical Code for Industrial Applications II
Task D-13 – Installs and maintains building systems equipment.		
D-13.01	Installs and maintains heating, ventilation and air conditioning (HVAC) systems.	C5 Industrial Control Systems
D-13.02	Installs and maintains lighting systems.	A5 Residential Electrical Code B1 Commercial Electrical Code C1 Electrical Code for Industrial Applications I

Task E-14 – Installs and maintains generators and synchronous condensers.		
E-14.01	Installs and maintains high voltage generators and synchronous condensers.	D2 AC Machines
E-14.02	Installs and maintains low voltage generators.	D2 AC Machines
E-14.03	Installs and maintains excitation systems.	C7 Governor and Excitation Equipment
E-14.04	Installs and maintains governor systems.	C7 Governor and Excitation Equipment
Task E-15 – Installs and maintains motors.		
E-15.01	Installs and maintains high voltage motors.	D2 AC Machines
E-15.02	Installs and maintains low voltage motors.	D2 AC Machines
Task F-16 – Installs and maintains protection systems.		
F-16.01	Installs and maintains protective relay systems.	D7 Relay and Protection Systems
F-16.02	Installs and maintains fire-detection and suppression equipment.	D1 Electrical Code for Industrial Applications II
Task F-17 – Installs and maintains control systems.		
F-17.01	Installs and maintains relay and microprocessor-based (PLC) control and monitoring systems.	C5 Industrial Control Systems D3 Automation
F-17.02	Installs and maintains instrumentation equipment.	C8 Metering
F-17.03	Installs and maintains AC and DC motor controls.	B4 Motor Controls B6 DC Machines and Controls C5 Industrial Control Systems D2 AC Machines
Task F-18 – Installs and maintains monitoring systems.		
F-18.01	Installs and maintains building security systems.	D3 Automation
F-18.02	Installs and maintains annunciation (monitoring) systems.	D1 Electrical Code for Industrial Applications II D7 Relay and Protection Systems