

MINE ELECTRICIAN – OCCUPATIONAL STANDARD TASK MATRIX



| Tasks and Subtasks | Code |
|--|----------|
| A-1 PERFORMS SAFETY RELATED FUNCTIONS | |
| 1) Maintains safe work environment | A - 1.01 |
| 2) Uses personal protective equipment (PPE) and safety equipment | A - 1.02 |
| 3) Performs lock-out and tag-out procedures | A - 1.03 |
| 4) Identifies environmental conditions | A - 1.04 |
| A-2 USES TOOLS AND EQUIPMENT | |
| 1) Uses common and specialty tools and equipment | A - 2.01 |
| 2) Uses access equipment | A - 2.02 |
| 3) Uses rigging, hoisting and lifting equipment | A - 2.03 |
| A-3 ORGANIZES WORK | |
| 1) Interprets plans, drawings and specifications | A - 3.01 |
| 2) Identifies hazardous locations | A - 3.02 |
| 3) Organizes materials and supplies | A - 3.03 |
| 4) Plans project tasks and procedures | A - 3.04 |
| 5) Prepares worksite | A - 3.05 |
| 6) Finalizes required documentation | A - 3.06 |

Tasks and Subtasks

Code

A-4 FABRICATES AND INSTALLS SUPPORT COMPONENTS

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|---|----------|
| 1) Fabricates support structures | A - 4.01 |
| 2) Installs brackets, hangers and fasteners | A - 4.02 |

A-5 COMMISSIONS AND DECOMMISSIONS ELECTRICAL SYSTEMS

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|--|----------|
| 1) Commissions systems | A - 5.01 |
| 2) Performs start-up and shutdown procedures | A - 5.02 |
| 3) Decommission systems | A - 5.03 |

A-6 USES COMMUNICATION AND MENTORING TECHNIQUES

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|----------------------------------|----------|
| 1) Uses communication techniques | A - 6.01 |
| 2) Uses mentoring techniques | A - 6.02 |

B-7 INSTALLS AND MAINTAINS CONSUMER / SUPPLY SERVICE METERING EQUIPMENT

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|--|----------|
| 1) Installs single-phase consumer/supply service metering equipment | B - 7.01 |
| 2) Maintains single-phase consumer/supply service metering equipment | B - 7.02 |
| 3) Installs three-phase consumer/supply service metering equipment | B - 7.03 |
| 4) Maintains three-phase consumer/supply service metering equipment | B - 7.04 |

B-8 INSTALLS AND MAINTAINS PROTECTION DEVICES

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|---|----------|
| 1) Installs protection devices | B - 8.01 |
| 2) Maintains protection devices | B - 8.02 |
| 3) Installs ground fault, arc fault and surge protection devices | B - 8.03 |
| 4) Maintains ground fault, arc fault and surge protection devices | B - 8.04 |

Tasks and Subtasks

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5) Installs under and over voltage protection devices

B - 8.05

6) Maintains under and over protection devices

B - 8.06

B-9 INSTALLS AND MAINTAINS LOW VOLTAGE DISTRIBUTION SYSTEMS

1) Installs low voltage distribution equipment

B - 9.01

2) Maintains low voltage distribution equipment

B - 9.02

B-10 INSTALLS AND MAINTAINS POWER CONDITIONING, UNINTERRUPTIBLE POWER SUPPLY (UPS) AND SURGE SUPPRESSION SYSTEMS

1) Installs power conditioning, UPS and surge suppression systems

B - 10.01

2) Maintains power conditioning, UPS and surge suppression systems

B - 10.02

B-11 INSTALLS AND MAINTAINS BONDING, GROUNDING AND GROUND FAULT DETECTION SYSTEMS

1) Installs bonding and grounding systems

B - 11.01

2) Maintains bonding and grounding systems

B - 11.02

3) Installs ground fault detection systems

B - 11.03

4) Maintains ground fault systems

B - 11.04

B-12 INSTALLS AND MAINTAINS POWER GENERATING SYSTEMS

1) Installs alternating current (AC) generating systems

B - 12.01

2) Maintains AC generating systems

B - 12.02

3) Maintains DC generating systems

B - 12.03

Tasks and Subtasks

Code

B-14 INSTALLS AND MAINTAINS HIGH VOLTAGE SYSTEMS

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|-----------------------------------|-----------|
| 1) Installs high voltage systems | B - 14.01 |
| 2) Maintains high voltage systems | B - 14.03 |

B-15 INSTALLS AND MAINTAINS TRANSFORMERS

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|--|-----------|
| 1) Installs extra low voltage transformers | B - 15.01 |
| 2) Maintains extra low voltage transformers | B - 15.02 |
| 3) Installs low voltage single-phase transformers | B - 15.03 |
| 4) Maintains low voltage for single-phase transformers | B - 15.04 |
| 5) Installs low voltage three-phase transformers | B - 15.05 |
| 6) Maintains low voltage three-phase transformers | B - 15.06 |
| 7) Installs high voltage transformers | B - 15.07 |
| 8) Maintains high voltage transformers | B - 15.08 |

C-16 INSTALLS AND MAINTAINS CABLES, CONDUCTORS AND ENCLOSURES

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|---|-----------|
| 1) Installs conductors and cables | C - 16.01 |
| 2) Maintains conductors and cables | C - 16.02 |
| 3) Installs conduit, tubing and fittings | C - 16.03 |
| 4) Maintains conduit, tubing and fittings | C - 16.04 |
| 5) Installs boxes and enclosures | C - 16.05 |
| 6) Maintains boxes and enclosures | C - 16.06 |

Tasks and Subtasks

Code

C-17 INSTALLS AND MAINTAINS BRANCH CIRCUITRY AND DEVICES

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|-----------------------------|-----------|
| 1) Installs luminaires | C - 17.01 |
| 2) Maintains luminaires | C - 17.02 |
| 3) Installs wiring devices | C - 17.03 |
| 4) Maintains wiring devices | C - 17.04 |

D - 22 INSTALLS AND MAINTAINS MOTOR STARTERS AND CONTROL DEVICES

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|------------------------------------|-----------|
| 1) Installs motor starters | D - 22.01 |
| 2) Maintains motor starters | D - 22.02 |
| 3) Installs motor control devices | D - 22.03 |
| 4) Maintains motor control devices | D - 22.04 |

D-23 INSTALLS AND MAINTAINS DRIVES

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|--|-----------|
| 1) Installs alternating current (AC) drives | D - 23.01 |
| 2) Maintains alternating current (AC) drives | D - 23.02 |
| 3) Installs direct current (DC) drives | D - 23.03 |
| 4) Maintains direct current (DC) drives | D - 23.04 |

D-24 INSTALLS AND MAINTAINS NON-ROTATING EQUIPMENT AND ASSOCIATED CONTROLS

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|---|-----------|
| 1) Installs non-rotating equipment and associated controls | D - 24.01 |
| 2) Maintains non-rotating equipment and associated controls | D - 24.02 |

Tasks and Subtasks

Code

D-25 INSTALLS AND MAINTAINS MOTORS

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|---|-----------|
| 1) Installs single-phase motors | D - 25.01 |
| 2) Maintains single-phase motors | D - 25.02 |
| 3) Installs three-phase motors | D - 25.03 |
| 4) Maintains three-phase motors | D - 25.04 |
| 5) Installs direct current (DC) motors | D - 25.05 |
| 6) Maintains direct current (DC) motors | D - 25.06 |

E-26 INSTALLS AND MAINTAINS SIGNALLING SYSTEMS

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|---------------------------------|-----------|
| 1) Installs fire alarm systems | E - 26.01 |
| 2) Maintains fire alarm systems | E - 26.02 |

E-27 INSTALLS AND MAINTAINS COMMUNICATION SYSTEMS

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|------------------------------------|-----------|
| 1) Installs communication systems | E - 27.01 |
| 2) Maintains communication systems | E - 27.02 |

E-28 INSTALLS AND MAINTAINS INTEGRATED CONTROL SYSTEMS

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|---|-----------|
| 1) Installs building automation systems | E - 28.01 |
| 2) Maintains building automation system | E - 28.02 |

Tasks and Subtasks

Code

F-29 INSTALLS AND MAINTAINS INPUT/OUTPUT (I/O) DEVICES

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|--|-----------|
| 1) Installs discrete input/output (I/O) devices | F - 29.01 |
| 2) Maintains discrete input/output (I/O) devices | F - 29.02 |
| 3) Installs analog input/output (I/O) devices | F - 29.03 |
| 4) Maintains analog input/output (I/O) devices | F - 29.04 |

F-30 INSTALLS AND MAINTAINS AUTOMATED CONTROL SYSTEMS

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|--|-----------|
| 1) Installs automated control systems | F - 30.01 |
| 2) Maintains automated control systems | F - 30.02 |

F-31 INSTALLS AND MAINTAINS PNEUMATIC AND HYDRAULIC CONTROL SYSTEMS

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|--|-----------|
| 1) Installs pneumatic control systems | F - 31.01 |
| 2) Maintains pneumatic control systems | F - 31.02 |
| 3) Installs hydraulic control systems | F - 31.03 |
| 4) Maintains hydraulic control systems | F - 31.04 |

NOTE: Missing numbers in the sequence of Tasks and Subtasks are the result of an alignment with the Industrial Electrician Red Seal Occupational Standard.