# **Work Process Schedule**

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| Wind Turbine Technician | |
| **Job Description:** Install, inspect, maintain, and repair wind turbines. | |
| **RAPIDS Code:** 2000CB | **O\*NET Code:** 49-9081.00 |
| **Estimated Program Length:** 2-3 years | |
| **Apprenticeship Type:**  Competency-Based  Time-Based  Hybrid | |

Suggested On-the-Job Learning Outline

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| Maintains a safe and secure work environment | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Maintains a clean and safe work area |  |  |
| 1. Follows company and job-specific safety procedures and federal, state, and local regulations, including applicable safety, health, and environmental regulations |  |  |
| 1. Follows ESD (electro-static discharge) procedure |  |  |
| 1. Handles HAZMATS and materials according to MSDS requirements |  |  |
| 1. Follows electrical safety procedures (low, medium, or high voltage) |  |  |
| 1. Performs safety inspections |  |  |
| 1. Follows environmental protection and hazardous chemical control procedures |  |  |
| 1. Maintain personal protective equipment |  |  |
| 1. Follows lock-out/tag-out procedures (energy flow/isolation) |  |  |
| 1. Participates in Job Safety Analysis (JSA) |  |  |
| 1. Stays up to date on company safety policy regulations |  |  |
| 1. Interacts with customers and vendors in a professional manner |  |  |
| 1. Participates in job or equipment-specific training and maintains technical skills |  |  |
| 1. Performs work required to maintain a well-kept appearance of wind turbines |  |  |

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| Maintains specialized equipment | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Follows the established calibration schedule |  |  |
| 1. Runs performance checks |  |  |
| 1. Red-tags malfunctioning and out-of-calibration equipment |  |  |
| 1. Performs preventive maintenance on specialized equipment |  |  |
| 1. Maintains the test equipment, where possible |  |  |
| 1. Evaluates the usefulness of current equipment and the need for new equipment |  |  |

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| Commissions new turbines | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Ensures proper fluid levels |  |  |
| 1. Inspects fasteners |  |  |
| 1. Terminates and tests components |  |  |
| 1. Performs diagnostic checks |  |  |
| 1. Performs reliability checks |  |  |
| 1. Performs proper start-up and break-in procedures according to manufacturer’s recommendations and specifications |  |  |

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| Assists with major component repair and replacement | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Troubleshoots, repairs, and replaces hydraulic systems |  |  |
| 1. Aligns shafts using laser-alignment equipment and procedures |  |  |
| 1. Performs mechanical shaft alignments |  |  |
| 1. Repairs and replaces generators |  |  |
| 1. Installs, repairs, and replaces equipment using hoists and rigging techniques |  |  |
| 1. Follows accepted standards and practices for mechanical and electrical assembly |  |  |
| 1. Installs and replaces bearings |  |  |

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| Performs preventive and predictive maintenance | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Selects, controls, and inspects required tools and test equipment |  |  |
| 1. Follows operating procedures and controls check sheets |  |  |
| 1. Inspects rotors and air coils |  |  |
| 1. Lubricates bearings, gears, and top offs |  |  |
| 1. Selects and replaces torque and tension fasteners |  |  |
| 1. Inspects bonding and grounding points (including lightning protection) inside and outside of turbine |  |  |
| 1. Repairs and replaces consumable wear components |  |  |
| 1. Works in small groups and teams to accomplish work tasks |  |  |
| 1. Follows manufacturer specifications in the operation and maintenance of equipment |  |  |
| 1. Monitors and uses site computer hardware and software systems |  |  |

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| Troubleshoots and tests systems and components | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Reviews the equipment and product information (e.g., manuals, schematics) |  |  |
| 1. Performs inspection (visual, audio, smell, touch, measurements) |  |  |
| 1. Traces circuits |  |  |
| 1. Generates a nonconformance report |  |  |
| 1. Maintains detailed records and logs |  |  |
| 1. Replaces circuit boards |  |  |
| 1. Loads new control system software |  |  |
| 1. Interprets sketches, schematics, and blueprints |  |  |
| 1. Tests and replaces motors |  |  |
| 1. Replaces PLCs and controllers |  |  |
| 1. Troubleshoots, calibrates, installs, and repairs components and instrumentation |  |  |

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| Maintains records and creates reports | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Completes required reports |  |  |
| 1. Maintains open communication with supervisor |  |  |
| 1. Completes daily logs |  |  |
| 1. Operates basic System Control and Data Acquisition (SCADA) control system functions |  |  |
| 1. Maintains electronic documents and records |  |  |
| 1. Revises and edits documents |  |  |

Suggested Related Instruction Outline

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| Provider | |
| **Name:** | |
| **Address:** | |
| **Email:** | **Phone Number:** |
| **Suggested Related Instruction Hours:** 288-432 | |

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| **Course Number** | **Course Title** | **Contact Hours** |
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