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| Title | **Operate and monitor micro hydro power (MHP) plant** |
| Level | **3** | **Credits** | **9** |

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| Purpose | This competency standard is intended for those who operate and monitor a Micro Hydel Power (MHP) plant. People holding credit for this competency standard are able to: Conduct pre-start checks; operate and monitor power plant; and complete documentation. |

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| Classification ISCED | 0713 Electricity and energy |

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| Available grade | Competent / Not yet competent |

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| Modification history | N/A |

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| **Competency Unit** | **Performance Criteria** | **Knowledge and Understanding** |
| **A1:****Conduct pre-start checks** | Trainee will be able to:**P1-** Identify and obtain safety and other regulatory requirements **P2-** Check safety equipment for correct operation**P3-** Carry outplant and auxiliary equipment inspections and pre-operational tests **P4-** Observe safe working procedures | **K1-** Safety requirements; Specifications; Hazard identification**K2-** Safety equipment for pre-start operation**K3-** Pre-start procedures |
| **A2:** **Control and monitor power plant operation** | Trainee will be able to:**P1-** Adjust and monitor water intake**P2-** Operate and monitor water conveyance system**P3-** Operate and monitor turbine, generator and control system**P4-** Operate and monitor auxiliary equipment**P5-** Detect deviations from normal operating conditions and system requirements | **K1-** Operating principles and procedures of plant components and auxiliary equipment including:**-** Turbine, generator, control system, water conveyance system, spillway gates, valves, instruments and gauges, **K2-** Common faults in electrical, mechanical systems**K3-** Corrective measures of all above(K1 & K2) |
| **A3:** **Finalize documentation** | Trainee will be able to:**P1-** Document irregularities in plant operation**P2-** Report status of plant | **K1-** Common malfunctions in MHP plant**K2-** Reporting forms**K3-** Reporting procedure |