



Australian Government

UEPOPS431 Collect and analyse hydrological and meteorological data

Release: 1

UEPOPS431 Collect and analyse hydrological and meteorological data

Modification History

Release 1. This is the first release of this unit of competency in the UEP Generation Training Package.

Application

This unit involves the skills and knowledge required to predict and determine inflows in catchment areas within a hydro powered electricity generation system.

Inflow forecasting for hydro powered electricity generation systems depends on several elements such as weather, snow cover, ground conditions and the run off process in catchment areas. All these elements help give insight into future water availability.

Competency in this unit requires the ability to plan for work, plan and prepare to conduct data collection, undertake data collection, verify and report data collection and complete documentation. Individuals will, in general, work under supervision, in a power generation facility as an operator.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Note: Workplace practice

The application of the skills and knowledge described in this unit may require a licence or training permit to practice in the workplace where work is carried out on gas and electrical installations. Additional conditions may apply under state and territory legislative and regulatory licensing requirements.

Pre-requisite Unit

UEPOPS209 Perform process plant inspection

Competency Field

Operations

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Plan for work related issues

- 1.1 Safety issues are identified, in accordance with workplace procedures, industry standards, legislative requirements and Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) regulations
- 1.2 Work, hydrological and meteorological equipment and resource requirements are identified from information and documentation, in accordance with workplace procedures
- 1.3 Preoperational check on hydrological and meteorological equipment is carried out, in accordance with workplace procedures

2 Plan and prepare to conduct data collection

- 2.1 Appropriate hydrological and meteorological equipment is selected, in accordance with workplace procedures, to conduct data collection
- 2.2 Hydrological and meteorological equipment is recalibrated, in accordance with workplace procedures and manufacturers' specifications preparation for survey
- 2.3 Potential hydrological and meteorological hazards are assessed and risk control measures are implemented, in accordance with workplace procedures
- 2.4 Meteorological charts and data are assessed for use, in accordance with workplace procedures

3 Undertake data collection

- 3.1 Measurement site in catchment area is established, in accordance with workplace procedures
- 3.2 Hydrological and meteorological instrumentation is set out in the catchment area, in accordance with workplace procedures and manufacturers' specifications
- 3.3 Measurements are taken, in accordance with workplace procedures
- 3.4 Measurements are record, in accordance with workplace procedures

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|---------------------------------|------------|---|
| | 3.5 | Tools and equipment used, are cleaned and stored, in accordance with workplace procedures |
| 4 Verify and report data | 4.1 | Measurements are analysed to verify accuracy of findings, and data is entered into data system, in accordance with workplace procedures |
| | 4.2 | Work order requirements are completed, in accordance with workplace procedures |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS431B Collect and analyse hydrological and meteorological data.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>