

Unit Code – VBP191**Prepare a Domestic Plumbing Inspection Report****Unit Descriptor**

This unit specifies the skills required to prepare, participate and report for a domestic plumbing inspection report.

This unit addresses the outcomes of the inspection report reviewing inspection documentation, identifying and preparing inspection checklists and report related documentation.

In addition, this unit provides for recommendations from the Inspection Report based upon a demonstrated knowledge of environmentally efficient plumbing.

It is a pre-requisite that all participants have completed ‘Develop and Advise on Domestic Plumbing Climate Care Measures’(unit code VBP187) and ‘Determine Water Conservation Measures’(unit code VBP188) of the ‘Course in GreenPlumbers Environmental Solutions’ and are required to be licensed and/or registered plumbing practitioners with a regulatory authority prior to commencing this unit.

Field of Education Code

040327 Plumbing

Nominal Hours

4 Hours

Element

Elements define the essential outcomes of a unit of competency.

- 1 Prepare for a domestic plumbing inspection report
- 2 Undertake a domestic plumbing inspection report
- 3 Perform Calculations

Performance Criteria

Performance criteria specify the level of performance required to demonstrate achievement of the element.

- 1.1 Plan the outline of the inspection report (audit) process
- 1.2 Develop inspection checklists to reflect the scope and objectives of the inspection report
- 1.3 Confirm schedules and logistical arrangements with the customer
- 2.1 Describe the auditing process by completing the scope and objectives of an inspection report.
- 3.1 Review audit methods and techniques in order to analyse relevant information
- 3.2 Report existing customer habits, trends and patterns of water and energy use and identify areas outside the normal patterns of usage
- 3.3 Apply the principles of calculations and utility costs of water and energy

Element	Performance Criteria
4 Develop product knowledge and recommendations	3.4 Calculate the potential water and energy volume and dollar savings in a household
	3.5 Read and interpret a metric conversion chart
	4.1 Illustrate knowledge of <i>water and energy efficient plumbing products</i>
	4.2 Compose a systematic list of recommendations for domestic home improvements
5 Monitor and review inspection report system and activities	4.3 Recommend an appropriate energy or water cost efficient strategy to the client.
	5.1 Identify and implement possible <i>improvements in inspection report audit methods</i> are identified and implemented

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

Unit scope

The scope of this unit is limited to developing the skills and knowledge required to prepare, participate and report on a domestic plumbing inspection report and prioritise and recommend possible future plumbing improvements. This unit is regulated to licenced and/or registered plumbing practitioners within a plumbing authority (State or Local Government).

Unit scope

The scope and objectives of the inspection report *The scope and objectives of the inspection report may include:*

- outdoor water audit
- indoor water audit
- outdoor visual inspections
- indoor visual inspections

Outdoor water audit

Outdoor water audit may include:

- watering garden and lawns
- swimming pools
- washing car/boat/caravan by bucket
- washing car/boat/caravan by hose
- running taps

Indoor water audit

Indoor water audit may include:

- kitchen sink – washing dishes by hand
- dishwashers
- washing machine
- laundry trough
- baths
- spa baths
- shower
- toilet
- running taps

Outdoor visual inspections

Outdoor visual inspections may include:

- roof, guttering and downpipes
- garden watering
- water tank
- water pressure and leaking taps
- waste disposal
- grey water access
- pool/garden ponds
- external sheds/garage/carport

Indoor visual inspections

Indoor visual inspections may include:

- hot water heater
- water pressure and leaking taps
- toilets
- heating system
- cooling system
- insulation
- grey water
- household energy
- household appliances
- windows and doors

Water and energy efficient

Water and energy efficient plumbing products may include:

- caring for our water products (refer to unit entitled ‘Determine Water Conservation Measures’)
- energy (climate) care products (refer to unit entitled ‘Develop and Advise on Domestic Plumbing Climate Care Measures’)
- gas
- electrical
- water efficiency labelling products such as a shower rose, tapware, dishwasher, washing machine and dual flush toilets
- solar heated water or heated water appliances
- heating appliances
- cooling appliances
- home insulation
- home lighting
- household cooking appliances
- taking into consideration gas/electric/home insulation existing conditions

Improvements in inspection report audit methods

Improvements in inspection report audit methods may include:

- new technology
- updated energy and water costs
- improved inspection report process

Safety (OH&S)

- OH&S requirements are to be in accordance with State or Territory legislation and regulations and may include protective clothing and equipment, use of tools and equipment and workplace environment and safety.

Environmental Requirements

- Environmental requirements are to cover water and energy quality management and may include waste management, stormwater protection and construction and clean up protection.

Quality Assurance

- Quality assurance requirements include International Standards Organisation, internal company quality assurance policy and risk management strategy, site safety plan and workplace operations and procedures

- Statutory/Regulatory Authorities**
- Statutory/regulatory authorities may include statutory plumbing authority, local government, the Environment Protection Authority, water authority and the Occupational Health and Safety Authority.
- Tools and equipment**
- Tools and equipment are to household inspection report eg '50 Point Environmental Household Inspection Report' or equivalent and calculator, recording and measuring devices and relevant documenting equipment
- Materials**
- Audit book, stationery
- Communications**
- Communications are to include personal communication techniques eg. written and verbal communication, telephone/email etc
- Information**
- Information sources may include :
- Checklists
 - schedules
 - audit procedures
 - forms for recording information
 - forms for documenting conformance and non-conformance evidence
 - records of meetings
 - utility information and metre readings
 - manufacturers' product information
 - Regulatory/legislative requirements, particularly those pertaining to plumbing regulations, building codes, OH&S and environmental requirements and water and energy authorities
 - Manufacturers' specifications and instructions
 - Organisation work specifications and requirements
 - Relevant Australian Standards include:
 - AS3500 – National Plumbing & Drainage code
 - Plumbing Code of Australia
 - Manual Handling code of practice
 - AS6400 Water Efficient Product Ratings and labeling
 - Working at Heights code of practice
 - Customer requirements

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria and Range Statement.

Critical aspects of evidence required to demonstrate competency in this unit

- Prepare and undertake an Inspection Report in order to ensure that the client purchases the best appliance/ service possible taking into consideration financial and environmental benefits.
- Apply safety requirements throughout the work sequence.
- As a minimum, communicate and work effectively and safely with others

Relationship to other units

- Where related units form an integral part of workplace responsibilities and roles, they can be assessed concurrently
- VBP187 ‘Develop and Advise on Domestic Plumbing Climate Care Measures’ and VBP188 ‘Determine Water Conservation Measures’ are pre requisites to VBP191 ‘Prepare a Domestic Plumbing Report’

Specific knowledge required to achieve the performance criteria

- A knowledge of:
 - audit methods and techniques as generally prescribed under plumbing regulatory bodies
 - legal issues and terminology relating to quality auditing
 - relevant statutory and authority requirements
 - product and/or service knowledge
 - quality principles and techniques

Specific key competencies, underpinning and employability skills required to achieve the performance criteria

These include a number of processes that are learned throughout work and life, which are required in most jobs. Some of these are covered by the national key competencies, although others may be added. The details below highlight how these competencies are to be applied in the attainment of this unit.

Application of the key competencies in this unit are to satisfy the nominated level in which:

Level 1 – relates to working effectively within set conditions and processes;

Level 2 – relates to the management or facilitation of conditions or processes; and

Level 3 – relates to the design, development and evaluation of conditions or process.

How will the candidate apply the following key competency in this unit? **The candidate will need to:**

Collect, analyse and organise information

Collect and gather information on existing household water and energy usage patterns and existing plumbing fixtures

Recommend future plumbing improvements

Analyse available methods to inform of audit outcomes

Level 2

Communicate ideas and information

Communicate verbally to negotiate and consult with client and other relevant parties

Communicate in writing to meet documentation requirements

Level 2

Plan and organise activities

Plan audit schedule and activities with client

Level 1

Work with others and in a team

Working with team leader and auditing team and personnel in area to be audited where appropriate

Level 2

Solve problems

Apply problem-solving skills including risk analysis

Apply problem-solving skills to issues arising with auditee and /or relevant parties

Level 1

Use mathematical ideas and techniques

Apply basic numerical and mathematical calculation skills to auditing processes

Level 1

Use technology

Use word processing s to produce required documentation for audits using assistive technology, if required

Level 2

The context of assessment

- The application of competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of essential underpinning knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to comply with relevant regulatory or Australian Standards requirements

Methods of assessment

- Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge
- Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies
- Assessment methods must confirm the ability to access and correctly interpret and apply the essential underpinning knowledge
- Assessment may be applied under project related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency, including those listed above

Specific resource requirements for this unit

- The following resources should be made available:
 - workplace location or simulated workplace
 - Inspection checklists
 - calculators or equivalent
 - support materials appropriate to the activity including government policies and statutory regulations
 - research resources including systems information and data

... End ...