

Unit of Competency CPCPFS3049

Conduct preventive maintenance on fixed fire pumpsets

Application

This unit of competency specifies the skills and knowledge required to conduct preventive maintenance on circulatory systems, packed glands and special valves associated with fixed fire pumpsets.

In some jurisdictions, this unit of competency may form part of accreditation, licensing, legislative, regulatory or certification requirements.

Prerequisite Unit

CPCPCM2043 Carry out WHS requirements

CPCPFS3041A Inspect and test fire pumpsets

Elements and Performance Criteria

1. Prepare for work.	<ul style="list-style-type: none">1.1 Access, read and apply preventative maintenance on fixed pumpset requirements from relevant job plans and specifications, codes, Australian Standards, manufacturer's specifications and jurisdictional requirements.1.2 Identify and apply workplace policies and procedures, work health and safety (WHS) and environmental requirements.1.3 Sequence tasks specified in relevant maintenance schedules1.4 Identify materials and components and calculate quantities.1.5 Select and check serviceability of tools, equipment and personal protective equipment (PPE).1.6 Carry out preparation of work area for efficient preventive maintenance of fixed fire pumpsets.1.7 Check materials and components for conformity with delivery docket.
2. Perform preventive maintenance tasks on pump circulatory system.	<ul style="list-style-type: none">2.1 Isolate pump following workplace requirements before conducting maintenance tasks.2.2 Disassemble cooling line strainer, remove and inspect screen, and identify and report faulty materials.2.3 Clean screen and reassemble strainer following workplace procedures.2.4 Check operation of circulatory valve and replace valve if required.2.5 De-isolate pump, conduct start test, and check water flow at tundish or sight glass.
3. Perform preventive maintenance tasks on packing glands.	<ul style="list-style-type: none">3.1 Disassemble pump packing gland housing and remove gland plate.3.2 Remove and dispose of packing using appropriate packing extractors and following quality and environmental requirements.3.3 Repack gland following manufacturer's instructions.3.4 Reinstall gland plate and adjust as required.3.5 De-isolate, operate and check pump to ensure packing gland leak rate meets manufacturer's instructions and quality requirements.

4. Perform preventive maintenance tasks on special pump valves.	4.1 Drain down pump pipework and check to ensure there is no residual water pressure. 4.2 Disassemble special valves and inspect housing. 4.3 Inspect internal components of special valves and install replacements. 4.4 Reassemble special valves, de-isolate pump and check system to ensure it is operating correctly.
5. Report anomalies and complete documentation.	5.1 Record inspection and testing results and report anomalies following quality requirements. 5.2 Complete preventive maintenance documentation and forward to relevant persons for action.
6. Clean up.	6.1 Clear the work area, and dispose of, reuse or recycle materials in accordance with state and territory legislation and workplace policies and procedures. 6.2 Clean tools and equipment, check for serviceability and report any damage, and store and secure.

Foundation skills

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

Unit Mapping Information

Supersedes and is equivalent to CPCPFS3049A Conduct preventive maintenance on fixed fire pumpsets.

Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCPFS3049

Conduct preventive maintenance on fixed fire pumpsets

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria for this unit by:

- performing preventive maintenance on a diesel-driven, packed gland fixed fire pumpset in accordance with AS 2941 Fixed fire protection installations across two different jobs and include:
 - a circulatory system
 - a packing gland
 - a pressure relief valve, and
 - a pressure reducing valve
- performing system interfaces isolation of fire detection control indicating equipment (FDCIE) and fire pumpsets.

Knowledge Evidence

To be competent in this unit, a person must demonstrate knowledge of:

- processes, procedures and techniques of:
 - conducting preventive maintenance on fixed fire pumpsets
 - isolating and draining down pump pipework
- characteristics, applications and limitations of approved materials and components:
 - end suction pumps
 - multistage multioutlet pumps
 - screw pumps
 - turbine pumps
 - split case pumps
 - pressure relief valves
 - pressure reducing valves
 - circulatory system
- how to access relevant information, including relevant job plans and specifications, codes, Australian Standards, manufacturer's specifications and jurisdictional requirements. to conduct preventive maintenance on fixed fire pumpsets
- tools, materials and equipment used to conduct preventive maintenance on fixed fire pumpsets
- work health and safety (WHS) requirements to conduct preventive maintenance on fixed fire pumpsets.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>