



Australian Government

MSMSUP303 Identify equipment faults

Release: 1

MSMSUP303 Identify equipment faults

Modification History

Release 1. Supersedes and is equivalent to MSAPMSUP303A Identify equipment faults

Application

This unit of competency covers the skills and knowledge required to plan and carry out checks to identify and deal with equipment faults and to determine solutions.

This unit of competency applies to experienced personnel, such as experienced operators, team leaders or supervisors, who are required to apply knowledge of materials, product purpose and processes to identify and deal with routine and non-routine faults in equipment, propose solutions, carry out solutions within scope of authority and competence and complete logs and reports.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members and the control room operator, as appropriate.

This unit of competency applies to all work environments and sectors within the industry. It does not include maintenance that would require trade-level skills. It is not intended that this competency would cover maintenance that is carried out in a workshop.

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

Pre-requisite Unit

Nil

Competency Field

Support

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes

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

1	Identify scope of operational check	1.1	Identify and classify equipment components and operating systems
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- 1.2 Match appropriate checks and procedures to the equipment operating systems
 - 1.3 Identify special checking procedures and parameters in manufacturer specifications and procedures
 - 1.4 Identify sources of information and data relevant to key variables
 - 1.5 Identify and control hazards
 - 1.6 Observe and undertake checks on the physical condition of equipment in accordance with procedures
 - 1.7 Record preliminary observations
 - 1.8 Discuss checking procedures with appropriate personnel and obtain necessary permission where required
- 2 Plan operational checks
- 2.1 Check specifications and notes from preliminary observations and identify areas to be clarified
 - 2.2 Plan sequence for checks, noting areas where results and observations should be recorded
 - 2.3 Ensure area is safe for operational check
 - 2.4 Make arrangements for any additional resources, including other employees
- 3 Check unit through full operational range
- 3.1 Undertake operational checks observing relevant safety and operational requirements
 - 3.2 Confirm results and findings
 - 3.3 Identify faults to be dealt with
- 4 Identify faults and formulate recommendations
- 4.1 Identify impact of faults on work schedule
 - 4.2 Record proposals for equipment repair based on faults found, cost/time implications and workplace approval systems
 - 4.3 Explain proposals to relevant workplace personnel,

including any options and recommendations

- 4.4 Take appropriate action to return equipment to full operation in accordance with procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

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

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Regulatory framework

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

Procedures

All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or more of the following:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- plant description manuals

- manufacturer instructions and specifications
- service manuals
- machine circuit diagrams for hydraulic/pneumatic and electrical/electronic circuits
- any similar instructions provided for the smooth running of the plant

Tools and equipment

Tools and equipment include one or more of the following:

- hand tools specific for the task
- product testing equipment (e.g. flowmeter, scales, tape measure, micrometer, calliper and ultrasonic thickness)
- equipment checking equipment (e.g. vibration meter, tachometer, current tester, thermal imaging and temperature gauge)

Hazards

Hazards include one or more of the following:

- rotating and moving machinery
- process materials, solids, fluids and gases under pressure or flowing
- temporary connections or by-passes
- electrical, hydraulic or pneumatic energy sources
- out-of-specification operation
- smoke, darkness and heat
- heat, smoke, dust or other atmospheric hazards
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- structural collapse
- equipment failures
- industrial (machinery, equipment and product)
- equipment or product mass
- noise, rotational equipment or vibration
- limited head spaces or overhangs
- working at heights, in restricted or confined spaces, or in environments subjected to heat, noise, dusts or vapours
- fire and explosion
- flammability and explosivity
- hazardous products and materials
- unauthorised personnel
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- extreme weather

- other hazards that might arise

Faults

Faults may arise from routine and non-routine causes and must be resolved by applying operational knowledge to apply existing, or develop new solutions, either individually or in collaboration with relevant experts to:

- determine faults needing action
- determine possible fault causes
- develop solutions to faults which do not have a known solution
- follow through items initiated until final resolution has occurred
- report faults outside area of responsibility/expertise to designated person

Non-routine faults are unexpected faults, or variations of previous faults and are associated with one or more of the following:

- out-of-specification product or variations
- response of equipment to materials variations
- new or changed materials
- changed equipment settings (e.g. higher speed or throughput)
- equipment breakdown or in need of maintenance

Operational knowledge includes one or more of the following:

- procedures
- training
- technical information such as journals, engineering specifications
- remembered experience
- relevant knowledge obtained from appropriate people

Variables

Key variables to be monitored include one or more of the following:

- equipment performance (e.g. speed, output and variations)
- equipment component performance
- sequences and timing of operations
- materials changes (desired and not desired)

Sources of information and data

Sources of information and data include one or more of the following:

- plant data
- log sheets
- operational and performance reports

- physical aspects, such as noise, smell, feel and pressure condition monitoring information
- planned maintenance schedules
- procedures

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>