



Australian Government

PMAOPS411 Manage plant shutdown and restart

Release: 1

PMAOPS411 Manage plant shutdown and restart

Modification History

Release 1. Supersedes and is equivalent to PMAOPS411B Manage plant shutdown and restart

Application

This unit of competency covers the skills and knowledge required to manage the shutdown and restart of a complex and integrated plant. It applies to planned, shutdowns and start-ups, but may also be applied to unplanned and emergency shutdowns (ESD). It does not apply to plant trips.

This unit of competency applies to senior technicians, panel technicians, outside technicians and those in similar roles who are required to apply in-depth knowledge of process and plant to in order to adapt normal practice, within the overall guidelines, to the situation; balance the varying requirements to ensure the shutdown occurs with maximum safety to personnel, plant, the environment and the business's productivity (in that order); and coordinate all personnel involved in the shutdown to ensure it happens in as orderly a fashion as possible and that the plant is left in the best condition possible for a quick restart.

This unit of competency does not apply to individual plant operators shutting down individual production units or following directions during a shutdown; these are included in the unit of competency for operating a particular production unit.

The individual will be liaising and communicating with all internal and external stakeholders.

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

Pre-requisite Unit

Nil

Competency Field

Operations

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

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

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|---|------------------------|-----|--|
| 1 | Manage shutdown | 1.1 | Check and verify safety systems to ensure that the unit has been made safe |
|---|------------------------|-----|--|

	sequence	1.2	Identify the reason for, or cause of, the shutdown by troubleshooting the system and by utilising all available data and information systems
		1.3	Obtain confirmation of the identified shutdown from field-based operators to verify both the nature and the reliability of the shutdown
		1.4	Rectify or initiate procedures to rectify the fault or shutdown cause through either repair of the operational fault or readjustment before returning the system to start-up status
2	Conduct start-up process	2.1	Satisfy all start-up permissives prior to start-up process being commenced
		2.2	Identify hazards and check that hazard controls are operational and effective
		2.3	Conduct start-up according to procedures and in a safe and efficient manner, ensuring a return to steady state operation is achieved
3	Document shutdown and start-up process	3.1	Complete all logs and workplace documentation relating to the shutdown/start-up process, ensuring all details, actions and responses are accurately recorded
		3.2	Record any further ongoing production problems and report to appropriate persons or authority

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

All operations to which this unit applies are subject to stringent health, safety and environment (HSE) requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and HSE requirements, the HSE requirements take precedence.

Hazards Hazards include one or more of the following:

- electricity
- 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
- plant services (steam, condensate and cooling water)
- working at heights, in restricted or confined spaces, or in environments subjected to heat, dusts or vapours
- 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

Procedures All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form,

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
- any similar instructions provided for the smooth running of the plant

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875>