



Australian Government

PMA30120 Certificate III in Process Plant Operations

Release 3

PMA30120 Certificate III in Process Plant Operations

Modification History

Release 3. 10 PMASMELT coded units reinstated into the elective group. Equivalent.

Release 2. Nineteen low use units removed from elective bank as determined at December 2020 AISC meeting in response to Skills Ministers' objectives. Equivalent.

Release 1. Seven specialisations added, packaging rules amended, 20 new PMAOPS coded units added and listed elective units reduced. Supersedes and equivalent to PMA30116 Certificate III in Process Plant Operations.

Qualification Description

This qualification reflects the role of advanced operators and operations technicians who use production equipment to directly produce product. At this level, operators/technicians undertake advanced operations, typically of integrated plant units in accordance with the operating procedures and apply their knowledge to anticipate problems. They are expected to solve a range of foreseen and unforeseen problems, using product and process knowledge to develop solutions to problems that do not have a known solution or a solution recorded in the procedures.

Entry Requirements

Nil

Packaging Rules

To be awarded the PMA30120 Certificate III in Process Plant Operations competency must be achieved in **twenty-one (21)** units of competency:

- 5 core units
- 16 elective units, consisting of:
 - at least 14 different units from the electives listed below
 - up to 2 units from any endorsed training package or accredited course – these units must be relevant to the work outcome.

Any combination of electives that meets the rules above can be selected for the award of the PMA30120 Certificate III in Process Plant Operations. Where appropriate, electives may be packaged to provide a qualification with a specialisation.

Packaging for each specialisation:

- All units in Group A and Group H electives must be selected for award of the *Certificate III in Process Plant Operations (Offshore Oil Upstream)*
- All units in Group B and Group H electives must be selected for award of the *Certificate III in Process Plant Operations (Gas/LNG Upstream)*

- All units in Group C and Group H electives must be selected for award of the *Certificate III in Process Plant Operations (Gas/LNG Downstream)*
- All units in Group D and Group H electives must be selected for award of the *Certificate III in Process Plant Operations (Utilities)*
- All units in Group E and Group H electives must be selected for award of the *Certificate III in Process Plant Operations (CSG Plant)*
- All units in Group F and Group H electives must be selected for award of the *Certificate III in Process Plant Operations (CSG Well)*
- All units in Group G and Group H electives must be selected for award of the *Certificate III in Process Plant Operations (CSG Pipelines)*

Complete all **five (5)** units from the following list:

Core Units		
Unit Code	Unit Title	Prerequisites
MSMENV272	Participate in environmentally sustainable work practices	
MSMSUP100	Apply workplace context to own job	
MSMSUP102	Communicate in the workplace	
MSMWHS110	Follow emergency response procedures	
MSMWHS200	Work safely	

Group A electives: Offshore Oil Upstream specialisation		
Unit Code	Unit Title	Prerequisites
PMAOPS246	Operate separation equipment	
PMAOPS322	Undertake well management	
PMAOPS357	Operate and troubleshoot produced water and water injection systems	
PMAOPS363	Operate and troubleshoot export systems	
Plus		
PMAOPS336	Operate and troubleshoot fixed-bed adsorption system	
Or		

Group A electives: Offshore Oil Upstream specialisation		
Unit Code	Unit Title	Prerequisites
PMAOPS334	Operate and troubleshoot gas absorption system	

Group B electives: Gas/LNG Upstream specialisation		
Unit Code	Unit Title	Prerequisites
PMAOPS322	Undertake well management	
PMAOPS363	Operate and troubleshoot export systems	
PMAOPS370	Operate and troubleshoot condensate stabilisation systems	
Plus		
PMAOPS336	Operate and troubleshoot fixed-bed adsorption system	
Or		
PMAOPS334	Operate and troubleshoot gas absorption system	

Group C electives: Gas/LNG Downstream specialisation		
Unit Code	Unit Title	Prerequisites
PMAOPS310	Operate and troubleshoot distillation system	
PMAOPS336	Operate and troubleshoot fixed-bed adsorption system	
PMAOPS341	Operate and troubleshoot cryogenic processes	
PMAOPS343	Transfer bulk fluids into/out of storage facility	
PMAOPS346	Operate and troubleshoot liquefaction process	

Group D electives: Utilities specialisation
--

Unit Code	Unit Title	Prerequisites
PMAOPS204	Select and use utilities and services	
PMAOPS332	Generate electrical power	
PMAOPS349	Operate and troubleshoot hydraulic systems	
PMAOPS352	Operate and troubleshoot instrument and plant air systems	
PMAOPS354	Operate and troubleshoot inert gas generation systems	
PMAOPS355	Operate and troubleshoot fuel systems	
PMAOPS356	Operate and troubleshoot water treatment systems	
PMAOPS367	Operate and troubleshoot cooling water systems	
PMAOPS368	Operate and troubleshoot heating medium/hot oil systems	
PMAOPS369	Operate and troubleshoot drain and vent systems	

Group E electives: CSG Plant specialisation

Unit Code	Unit Title	Prerequisites
PMAOPS205	Operate heat exchangers	
PMAOPS223	Operate and monitor valve systems	
PMAOPS246	Operate separation equipment	
PMAOPS280	Interpret process plant schematics	
PMAOPS306	Operate and troubleshoot production unit	
PMAOPS314	Operate and troubleshoot compressor systems	
Plus		
PMAOPS201	Operate fluid flow equipment	
Or		

Group E electives: CSG Plant specialisation		
Unit Code	Unit Title	Prerequisites
PMAOPS222	Operate and monitor pumping systems and equipment	PMAOPS221 Operate and monitor prime movers OR PMAOPS324 Operate a gas turbine

Group F electives: CSG Well specialisation		
Unit Code	Unit Title	Prerequisites
PMAOPS223	Operate and monitor valve systems	
PMAOPS233	Monitor wells and gathering systems	
PMAOPS280	Interpret process plant schematics	
PMAOPS318	Conduct artificial lift	
PMAOPS339	Operate and troubleshoot wells and gathering systems	
Plus		
PMAOPS201	Operate fluid flow equipment	
Or		
PMAOPS222	Operate and monitor pumping systems and equipment	PMAOPS221 Operate and monitor prime movers OR PMAOPS324 Operate a gas turbine

Group G electives: CSG Pipeline specialisation		
Unit Code	Unit Title	Prerequisites
PMAOPS216	Operate local control system	
PMAOPS223	Operate and monitor valve systems	
PMAOPS230	Monitor, operate and maintain pipeline stations and equipment	

Group G electives: CSG Pipeline specialisation		
Unit Code	Unit Title	Prerequisites
PMAOPS280	Interpret process plant schematics	
PMAOPS338	Communicate and monitor pipeline activities	
PMAOPS342	Conduct pipeline pigging	
PMASUP241	Maintain pipeline easements	

Group H electives: Tradecraft and permit to work/isolations		
Unit Code	Unit Title	Prerequisites
MSMPER201	Monitor and control work permits	
MSMSUP240	Undertake minor maintenance	
MSMSUP303	Identify equipment faults	
MSMWHS201	Conduct hazard analysis	
PMAOPS347	Create and conduct isolations in the workplace	PMASUP244 Prepare and isolate plant
PMASUP244	Prepare and isolate plant	

Other electives		
Unit Code	Unit Title	Prerequisites
HLTAID011	Provide First Aid	
HLTAID013	Provide First Aid in remote or isolated site	
HLTAID014	Provide advanced First Aid	
MEM07033	Operate and monitor basic boiler	MEM11011, MEM13015, MEM16006
MEM09002	Interpret technical drawing	MEM12023, MEM12024, MEM13015, MEM16006

Other electives		
Unit Code	Unit Title	Prerequisites
MEM09003	Prepare basic engineering drawing	MEM09002, MEM12023, MEM12024, MEM13015, MEM16006
MEM11011	Undertake manual handling	MEM13015, MEM16006
MEM12023	Perform engineering measurements	MEM13015, MEM16006
MEM12024	Perform computations	MEM13015, MEM16006
MEM13015	Work safely and effectively in manufacturing and engineering	
MEM16006	Organise and communicate information	MEM13015
MEM18011	Shut down and isolate machines/equipment	MEM11011, MEM13015, MEM16006
MSL952001	Collect routine site samples	
MSL973013	Perform basic tests	
MSMBLIC001	Licence to operate a standard boiler	
MSMBLIC002	Licence to operate an advanced boiler	
MSMOPS100	Use equipment	
MSMOPS200	Operate equipment	
MSMOPS212	Use organisation computers or data systems	
MSMPER200	Work in accordance with an issued permit	
MSMPER202	Observe permit work	
MSMPER205	Enter confined space	MSMPER200 Work in accordance with an issued permit
MSMPER300	Issue work permits	MSMWHS201 Conduct hazard analysis
MSMPMC303	Operate grinding equipment	

Other electives		
Unit Code	Unit Title	Prerequisites
MSMPMC306	Operate crushing equipment	
MSMSUP101	Clean workplace or equipment	
MSMSUP106	Work in a team	
MSMSUP200	Achieve work outcomes	
MSMSUP210	Process and record information	
MSMSUP292	Sample and test materials and product	
MSMSUP300	Identify and apply process improvements	
MSMSUP310	Contribute to the development of workplace documentation	
MSMSUP330	Develop and adjust a production schedule	
MSMSUP382	Provide coaching/mentoring in the workplace	
MSMSUP383	Facilitate a team	
MSMSUP390	Use structured problem-solving tools	
MSMWHS100	Follow WHS procedures	
MSMWHS205	Control minor incidents	
MSMWHS210	Undertake first response to non-fire incidents	
MSMWHS212	Undertake first response to fire incidents	
MSMWHS216	Operate breathing apparatus	
MSMWHS217	Gas test atmospheres	
MSMWHS218	Control the risks of falls	
MSMWHS300	Facilitate the implementation of WHS	

Other electives		
Unit Code	Unit Title	Prerequisites
	for a work group	
MSMWHS401	Assess risk	
MSS402002	Sustain process improvements	
MSS402040	Apply 5S procedures	
MSS402050	Monitor process capability	
MSS402080	Undertake root cause analysis	
MSS402081	Contribute to the application of a proactive maintenance strategy	
MSS402082	Apply cost factors to work practices	
MSS402083	Use planning software systems in operations	
PMAOMIR301	Undertake initial rescue	
PMAOMIR302	Respond to a helideck incident	
PMAOMIR306	Operate control panel during an emergency	
PMAOMIR323	Manage communication systems during an incident	
PMAOMIR322	Manage incident response information	
PMAOMIR346	Assess and secure an incident site	
PMAOPS101	Read dials and indicators	
PMAOPS105	Select and prepare materials	
PMAOPS202	Operate fluid mixing equipment	
PMAOPS208	Operate chemical separation equipment	
PMAOPS210	Operate solids handling equipment	
PMAOPS213	Package product/material	

Other electives		
Unit Code	Unit Title	Prerequisites
PMAOPS217	Operate wet milling equipment	
PMAOPS220	Monitor chemical reactions in the process	
PMAOPS221	Operate and monitor prime movers	
PMAOPS224	Provide fluids for utilities and support	
PMAOPS231	Control gas odourisation	
PMAOPS232	Operate filtration equipment	
PMAOPS234	Monitor and operate low pressure compressors	
PMAOPS236	Monitor continuous process plant	
PMAOPS240	Store fluids in bulk	
PMAOPS241	Operate Joule-Thomson effect device	
PMAOPS247	Operate powered separation equipment	
PMAOPS260	Conduct screening operations	
PMAOPS261	Operate bulk solids loading equipment	
PMAOPS262	Operate digestion equipment	
PMAOPS309	Operate solids handling/storage facility	
PMAOPS311	Operate and troubleshoot reactors and reaction equipment	
PMAOPS313	Operate and troubleshoot furnaces to induce reaction	
PMAOPS315	Operate and troubleshoot process control systems	
PMAOPS316	Organise storage and logistics of general materials	

Other electives		
Unit Code	Unit Title	Prerequisites
PMAOPS317	Undertake ship transfer operations	
PMAOPS319	Adjust batch	
PMAOPS328	Operate and troubleshoot heating furnace	
PMAOPS331	Operate and troubleshoot gas turbine system	
PMAOPS344	Operate and troubleshoot flare system	
PMAOPS345	Operate and troubleshoot gas treatment process	
PMAOPS348	Operate safety, protection and shutdown systems	
PMAOPS351	Operate and troubleshoot turret swivel systems	
PMAOPS353	Operate and troubleshoot heating, ventilation and air conditioning systems	
PMAOPS358	Process design fundamentals	
PMAOPS359	Operate and troubleshoot process measurement and control systems	
PMAOPS390	Operate a biochemical process	
PMAOPS405	Operate complex control systems	
PMAOPS411	Manage plant shutdown and restart	
PMASMELT260	Form carbon anodes	
PMASMELT261	Bake carbon anodes	
PMASMELT262	Clean and strip anode rods	
PMASMELT263	Spray carbon anodes	
PMASMELT264	Start up reduction cells	

Other electives		
Unit Code	Unit Title	Prerequisites
PMASMELT265	Operate reduction cells	
PMASMELT266	Deliver molten metal	
PMASMELT267	Cast ingots	
PMASMELT268	Operate vertical direct casting process	
PMASMELT269	Operate cell tending equipment	
PMASMELT270	Supply product from reduction cells	
PMASUP236	Operate vehicles in the field	
PMASUP245	Break and make flanged joints using hand tools	
PMASUP246	Disconnect and reconnect non-flared tube fitting joints	
PMASUP305	Operate offshore cranes	
PMASUP311	Operate communications hub	
PMASUP349	Monitor and control repairs and modifications on operational pipe	
PMASUP345	Monitor vibration	
PMASUP348	Monitor and maintain cathodic protection systems	
PMAWHS211	Prepare equipment for emergency response	
PMAWHS213	Undertake fire control and emergency rescue	
PMAWHS310	Investigate incidents	
PMAWHS311	Lead emergency teams	
PSPGEN015	Work effectively with diversity	
RIIPBE203D	Conduct precipitation operations	

Other electives		
Unit Code	Unit Title	Prerequisites
RIIPBE301D	Conduct calcinations activities	
RIIPBE308D	Conduct thickening and clarifying process	
RIIRIS201E	Conduct local risk control	
TAEASS301	Contribute to assessment	
TAEDEL301	Provide work skill instruction	
TLID2010	Operate a forklift	
UEPOPL001	Licence to operate a steam turbine	

Qualification Mapping Information

Release 3. Supersedes and equivalent to PMA30120 Certificate III in Process Plant Operations (Release 2). 10 PMASMELT units reinstated into elective group.

Release 2. Supersedes and equivalent to PMA30120 Certificate III in Process Plant Operations (Release 1).

Release 1. Supersedes and equivalent to PMA30116 Certificate III in Process Plant Operations.

Links

Companion Volume implementation guides are found in VETNet -

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