



Australian Government

PMA30116 Certificate III in Process Plant Operations

Release 1

PMA30116 Certificate III in Process Plant Operations

Modification History

Release 1. Supersedes and is equivalent to PMA30113 Certificate III in Process Plant Operations

Qualification Description

The PMA30116 Certificate III in Process Plant Operations is a technical qualification for advanced operators and operations technicians who use production equipment to directly produce product. At this level, operators/technicians would undertake more advanced operations, typically of integrated plant units in accordance with the operating procedures, and would apply their knowledge to anticipate problems. They would be expected to solve a range of foreseen and unforeseen problems, using product and process knowledge to develop solutions to problems which do not have a known solution, or a solution recorded in the procedures.

Other non-technical Certificate III qualifications are available for production support employees at this level, such as MSM30116 Certificate III in Process Manufacturing.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

To be awarded the PMA30116 Certificate III in Process Plant Operations competency must be achieved in **twenty-one (21)** units of competency:

- **five (5)** core units of competency
- **sixteen (16)** elective units of competency, chosen as specified below:
 - a minimum of **two (2)** units of competency from Group A
 - the remainder may be chosen from Groups A, B and C (with a maximum of **twelve (12)** from Group C) to bring the total number of electives to **sixteen (16)**.

Note: Four (4) elective units can be chosen from other qualifications in this Training Package, other endorsed Training Packages and accredited courses, as specified in Groups B and C.

Note: Where prerequisite units are identified they must be counted in the total number of units required for achievement of the qualification.

Core units of competency

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

| Unit code | Unit title | |
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| 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 | |
| ELECTIVE UNITS | | |
| Group A – Technical electives | | |
| Unit code | Unit title | Prerequisites |
| FDFPHGMP3A | Monitor the implementation of Good Manufacturing Practice procedures | |

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| MEM18011C | Shut down and isolate machine/equipment | |
| MSMBLIC001 | License to operate a standard boiler | |
| MSMBLIC002 | License to operate an advanced boiler | |
| NWP357B | Monitor, operate and control reverse osmosis and nano-filtration processes | |
| PMAOMIR305 | Operate panel during an emergency | PMAOPS305 |
| PMAOPS300 | Operate a production unit | |
| PMAOPS301 | Operate a distillation unit | |
| PMAOPS302 | Operate reactors and reaction equipment | |
| PMAOPS303 | Operate furnaces to induce reaction | |
| PMAOPS304 | Operate and monitor compressor systems and equipment | |
| PMAOPS305 | Operate process control systems | |
| PMAOPS307 | Transfer bulk fluids into/out of storage facility | |
| PMAOPS308 | Organise storage and logistics of general materials | |
| PMAOPS309 | Operate solids handling/storage equipment | |
| PMAOPS312 | Undertake ship loading/unloading operations | |
| PMAOPS319 | Adjust batch | |
| PMAOPS320 | Conduct artificial lift | |
| PMAOPS321 | Undertake well management | |
| PMAOPS323 | Operate and monitor heating furnace | |
| PMAOPS324 | Operate a gas turbine | |
| PMAOPS325 | Generate electrical power | |
| PMAOPS326 | Operate gas absorption unit | |
| PMAOPS327 | Operate fixed bed adsorption unit | |

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| PMAOPS329 | Operate liquid extraction unit | |
| PMAOPS330 | Communicate and monitor pipeline activities | |
| PMAOPS333 | Operate wells and gathering systems | |
| PMAOPS335 | Conduct pipeline pigging | |
| PMAOPS340 | Operate cryogenic processes | |
| PMAOPS350 | Match and adjust colour | |
| PMAOPS360 | Operate a metalliferous kiln/furnace | |
| PMAOPS361 | Operate a smelting furnace | |
| PMAOPS362 | Operate a blast furnace | |
| PMAOPS364 | Operate an electrochemical process | |
| PMAOPS365 | Operate pelletising equipment | |
| PMAOPS366 | Operate sintering equipment | |
| PMAOPS390 | Operate a biochemical process | |
| UEPOPL001A | Licence to operate a steam turbine | |
| <p>One (1) unit may be chosen from Group A in PMA40116 Certificate IV in Process Plant Technology</p> | | |
| <p>Group B – Support electives</p> | | |
| Unit code | Unit title | Prerequisites |
| HLTAID003 | Provide first aid | |
| MEM09003B | Prepare basic engineering drawing | MEM09002B |
| MSL973001 | Perform basic tests | |
| MSMPER300 | Issue work permits | MSMWHS201 |

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| MSMSUP300 | Identify and apply process improvements | |
| MSMSUP301 | Apply HACCP to the workplace | |
| MSMSUP303 | Identify equipment faults | |
| MSMSUP309 | Maintain and organise workplace records | |
| MSMSUP310 | Contribute to 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 | |
| MSMWHS300 | Facilitate the implementation of WHS for a work group | MSMWHS200 |
| PMAOMIR301 | Undertake initial rescue | MSMWHS216 MSMWHS217 HLTAID003 |
| PMAOMIR302 | Respond to a helideck incident | |
| PMAOMIR317 | Facilitate search and rescue operations | |
| PMAOMIR320 | Manage incident response information | |
| PMAOMIR321 | Manage communication systems during an incident | |
| PMAOMIR346 | Assess and secure an incident site | |
| PMASUP305 | Operate Offshore Cranes | |
| PMASUP311 | Operate communications hub | |
| PMASUP341 | Monitor and maintain instrument and control systems | MSMPER300 |
| PMASUP342 | Monitor and maintain electrical systems | MSMPER300 |
| PMASUP343 | Monitor and maintain cathodic protection systems | |

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| PMASUP344 | Monitor and control repairs and modifications on operational pipe | |
| PMASUP345 | Monitor vibration | |
| PMASUP346 | Control corrosion | |
| PMASUP347 | Undertake corrosion inspection on process plant | |
| PMAWHS310 | Investigate incidents | |
| PMAWHS311 | Lead emergency teams | |
| PMAWHS312 | Command the operation of survival craft | |
| PMAWHS320 | Provide advanced first aid response | HLTAID003 |
| PMAWHS321 | Provide first aid response in remote and/or isolated area | HLTAID003 |
| PSPGEN015 | Work effectively with diversity | |
| TAEASS301 | Contribute to assessment | |
| TAEDEL301 | Provide work skill instruction | |
| <p>Up to one (1) relevant unit may be chosen from this Training Package, other endorsed Training Packages and accredited courses where the unit is packaged in a Certificate III or IV.</p> | | |
| <p>Group C – Other electives</p> | | |
| Unit code | Unit title | Prerequisites |
| FDFPH1001A | Follow work procedures to maintain Good Manufacturing Practice | |
| FDFPH2001A | Apply Good Manufacturing Practice procedures | |
| MEM04001B | Operate melting furnaces | |
| MEM05012C | Perform routine manual metal arc welding | |

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| MEM09002B | Interpret technical drawing | |
| MEM11011B | Undertake manual handling | |
| MEM16005A | Operate as a team member to conduct manufacturing, engineering or related activities | |
| MSL952001 | Collect routine site samples | |
| MSMENV172 | Identify and minimise environmental hazards | |
| MSMOPS100 | Use equipment | |
| MSMOPS102 | Perform tasks to support production | |
| MSMOPS200 | Operate equipment | |
| MSMOPS212 | Use organisation computers or data systems | |
| MSMPER200 | Work in accordance with an issued permit | |
| MSMPER201 | Monitor and control work permits | |
| MSMPER202 | Observe permit work | |
| MSMPER205 | Enter confined space | MSMPER200 |
| MSMSUP101 | Clean workplace or equipment | |
| MSMSUP106 | Work in a team | |
| MSMSUP200 | Achieve work outcomes | |
| MSMSUP204 | Pack products or materials | |
| MSMSUP205 | Transfer loads | |
| MSMSUP210 | Process and record information | |
| MSMSUP240 | Undertake minor maintenance | |
| MSMSUP273 | Handle goods | |
| MSMSUP280 | Manage conflict at work | |
| MSMSUP291 | Participate in continuous improvement | |
| MSMSUP292 | Sample and test materials and product | |

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| MSMWHS101 | Follow WHS procedures | |
| MSMWHS201 | Conduct hazard analysis | |
| 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 | |
| MSS402002A | Sustain process improvements | |
| MSS402030A | Apply cost factors to work practices | |
| MSS402031A | Interpret product costs in terms of customer requirements | |
| MSS402040A | Apply 5S procedures | |
| MSS402050A | Monitor process capability | |
| MSS402051A | Apply quality standards | |
| MSS402060A | Use planning software systems in operations | |
| MSS402080A | Undertake root cause analysis | |
| MSS402081A | Contribute to the application of a proactive maintenance strategy | |
| PMAOMIR210 | Control evacuation to muster point | |
| PMAOPS101 | Read dials and indicators | |
| PMAOPS105 | Select and prepare materials | |
| PMAOPS201 | Operate fluid flow equipment | |
| PMAOPS202 | Operate fluid mixing equipment | |
| PMAOPS204 | Select and use utilities and services | |
| PMAOPS205 | Operate heat exchangers | |

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| PMAOPS208 | Operate chemical separation equipment | |
| PMAOPS210 | Operate solids handling equipment | |
| PMAOPS211 | Operate manufacturing extrusion systems | |
| PMAOPS213 | Package product/material | |
| PMAOPS216 | Operate local control system | |
| PMAOPS217 | Operate wet milling equipment | |
| PMAOPS220 | Monitor chemical reactions in the process | |
| PMAOPS221 | Operate and monitor prime movers | |
| PMAOPS222 | Operate and monitor pumping systems and equipment | PMAOPS221 OR PMAOPS324 |
| PMAOPS223 | Operate and monitor valve systems | |
| PMAOPS224 | Provide fluids for utilities and support | |
| PMAOPS226 | Monitor and operate flare systems | |
| PMAOPS230 | Monitor, operate and maintain pipeline stations and equipment | |
| PMAOPS231 | Control gas odourisation | |
| PMAOPS232 | Operate filtration equipment | |
| PMAOPS233 | Monitor wells and gathering systems | |
| PMAOPS234 | Monitor and operate low pressure compressors | |
| PMAOPS236 | Monitor continuous process plant | |
| PMAOPS240 | Store fluids in bulk | |
| PMAOPS241 | Operate Joule-Thomson effect device | |
| PMAOPS242 | Moor ships for transfer of bulk processed particulates or fluids | |
| PMAOPS246 | Operate separation equipment | |
| PMAOPS247 | Operate powered separation equipment | |

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| PMAOPS260 | Conduct screening operations | |
| PMAOPS261 | Operate bulk solids loading equipment | |
| PMAOPS262 | Operate digestion equipment | |
| PMAOPS263 | Operate leaching equipment | |
| PMAOPS264 | Operate solvent extraction equipment | |
| PMAOPS265 | Operate magnetic/electrical separation equipment | |
| PMAOPS280 | Interpret process plant schematics | |
| PMAOPS290 | Operate a biotreater | |
| PMASMELT260 | Form carbon anodes | |
| PMASMELT261 | Bake carbon anodes | |
| PMASMELT262 | Clean and strip anode rods | |
| PMASMELT263 | Spray carbon anodes | |
| PMASMELT264 | Start up reduction cells | |
| 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 | |
| PMASUP237 | Undertake crane, dogging and load transfer operations | |
| PMASUP241 | Maintain pipeline easements | |
| PMASUP242 | Monitor pipeline civil works | |
| PMASUP243 | Monitor and maintain pipeline coatings | |

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| PMASUP244 | Prepare and isolate plant | |
| PMASUP245 | Break and make flanged joints using hand tools | |
| PMASUP246 | Disconnect and reconnect non-flared tube fitting joints | |
| PMAWHS211 | Prepare equipment for emergency response | |
| PMAWHS213 | Undertake fire control and emergency rescue | |
| PMAWHS214 | Undertake helicopter safety and escape | |
| PMAWHS215 | Apply offshore facility abandonment and sea survival procedures | |
| PMAWHS221 | Maintain first aid resources and records | |
| PMC552002C | Operate equipment to blend/mix materials | |
| PMC552003C | Operate grinding equipment | |
| PMC552008B | Operate crushing equipment | |
| PMC562070B | Move materials | |
| TLID2010 | Operate a forklift | |
| UEPOPS319B | Operate and monitor gas production plant | |
| <p>Up to three (3) relevant units may be chosen from this Training Package, other endorsed Training Packages and accredited courses where those units are packaged in a Certificate II or III.</p> | | |

Qualification Mapping Information

Release 1. Supersedes and is equivalent to PMA30113 Certificate III in Process Plant Operations

Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>