

# PMA60116 Advanced Diploma of Process Plant Technology

Release: 2

# PMA60116 Advanced Diploma of Process Plant Technology

# **Modification History**

Release 2. Elective unit codes and titles updated. Supersedes and is equivalent to PMA60116 Advanced Diploma of Process Plant Technology (Release 1).

Release 1. Supersedes and is equivalent to PMA60108 Advanced Diploma of Process Plant Technology.

# **Qualification Description**

The PMA60115 Advanced Diploma of Process Plant Technology is a technical qualification for technologists or para-professionals who undertake technical projects such as plant modifications either individually or as part of a project team where they have a significant technical role. They may have worked their way up through the process plant operation/technology certificate and diploma qualifications or may have entered the industry at this level, either from another industry or trade occupation.

Other non-technical Advanced Diplomas are available at this level such as MSS60312 - Advanced Diploma of Competitive Systems and Practices.

# **Entry Requirements**

There are no entry requirements for this qualification.

# **Packaging Rules**

To be awarded the PMA60116 Advanced Diploma of Process Plant Technology competency must be achieved in **fifteen (15)** units of competency:

- **four (4)** core units of competency
- eleven (11) elective units of competency, chosen as specified below:
- a minimum of **one** (1) from Group A
- a minimum of one (1) from Group B
- the remainder may be chosen from Groups A, B, C and D (with a maximum of seven (7) from Group D) to bring the total number of electives to eleven (11).

**Note: Three** (3) elective units can be chosen from other qualifications in this Training Package, other endorsed Training Packages and accredited courses, as specified in Groups C and D.

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

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#### Core units of competency

Complete all four (4) units from the following list.

| Unit code | Unit title  |
|-----------|---|
| MSMENV272 | Participate in environmentally sustainable work practices |
| MSMSUP200 | Achieve work outcomes                                     |
| MSMSUP210 | Process and record information                            |
| MSMWHS200 | Work safely   |

#### **ELECTIVE UNITS**

#### **Group A – Technical electives**

| Unit code | Unit title  | Prerequisites |
|-----------|---|---------------|
| PMAOPS600 | Modify plant  |               |
| PMAOPS601 | Debottleneck plant  |               |
| PMAOPS751 | Apply physiochemical knowledge to select raw materials for surface coatings |               |
| PMAOPS752 | Develop a decorative coating  |               |
| PMAOPS753 | Develop a non-decorative coating or ink                                     |               |
| PMAOPS755 | Provide surface coatings application advice                                 |               |
| MSMOPS601 | Design equipment and system modifications                                   |               |

## **Group B – Support electives**

| Unit code | Unit title  | Prerequisites |
|-----------|---|---------------|
| MSS405015 | Manage relationships with non-customer external organisations |               |
| MSS405084 | Manage people relationships                                   |               |

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| MSS405016  | Manage workplace learning   |            |
|------------|---|------------|
| MSS405030  | Optimise cost of a product or service   |            |
| MSS405031  | Undertake value analysis of product or process costs in terms of customer requirements      |            |
| MSS405040  | Manage 5S system in an organisation   |            |
| MSS405041  | Implement improvement systems in an organisation  |            |
| MSS405054  | Determine and improve process capability  | MSS404052A |
| MSS405063  | Develop the application of enterprise control systems in an organisation                    |            |
| MSS405064  | Determine and establish information collection requirements and processes                   |            |
| MSS405088  | Plan, implement and monitor energy management   |            |
| MSS015022  | Develop strategies for more sustainable use of resources                                    |            |
| MSS405081  | Develop a proactive maintenance strategy  |            |
| MSMENV672  | Develop workplace policy and procedures for environmental sustainability                    |            |
| MSMWHS601  | Develop WHS management system   |            |
| MSL936003  | Maintain quality system and continuous improvement processes within work or functional area |            |
| PMAOMIR622 | Build partnerships to improve incident response capacity                                    |            |
| PMAOMIR650 | Manage a crisis   |            |
| PMASUP620  | Manage environmental management system  |            |
| PSPMGT003  | Manage change   |            |
| PSPMGT004  | Manage diversity  |            |

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| Unit code  | Unit title   | Prerequisites          |
|------------|--|------------------------|
| MSMWHS503  | Maintain WHS management system                                   |                        |
| MSMWHS510  | Manage risk  |                        |
| PMAOMIR512 | Establish incident response preparedness and response systems    |                        |
| PMAOMIR523 | Manage corporate media requirements in a crisis                  |                        |
| PMAOMIR575 | Coordinate welfare support activities in response to an incident |                        |
| PMAOPS500  | Optimise production systems                                      |                        |
| PMAOPS501  | Provide operational expertise to a project team                  |                        |
| PMAOPS505  | Control the process during abnormal situations                   |                        |
| PMAOPS511  | Determine energy transfer loads                                  |                        |
| PMAOPS512  | Determine mass transfer loads                                    |                        |
| PMAOPS520  | Manage utilities   |                        |
| PMAOPS521  | Plan plant shutdown  |                        |
| PMAOPS522  | Coordinate plant shutdown  |                        |
| PMAOPS550  | Develop a colour formulation                                     | PMAOPS350<br>PMAOPS450 |
| PMAOPS560  | Plan and design tailings management facilities                   |                        |
| PMASUP520  | Review procedures to minimise environmental impact of process    |                        |
| PMASUP540  | Analyse equipment performance                                    |                        |
| PMAWHS502  | Contribute to safety case  |                        |
| PMAWHS511  | Manage emergency incidents                                       |                        |

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Up to **one** (1) relevant unit may be chosen from this Training Package, other endorsed Training Packages and accredited courses where that unit is packaged in a Diploma or above.

## **Group D – Other electives**

| Unit code | Unit title   | Prerequisites |
|-----------|--|---------------|
| MSL954004 | Obtain representative samples in accordance with a sampling plan |               |
| MSMENV472 | Implement and monitor environmentally sustainable work practices |               |
| MSMOPS400 | Optimise process/plant area                                      |               |
| MSMOPS401 | Trial new process or product                                     |               |
| MSMPER300 | Issue work permits   | MSMWHS201     |
| MSMPER400 | Coordinate permit process  | MSMPER300     |
| MSMSUP390 | Use structured problem-solving tools                             |               |
| MSMSUP400 | Develop and monitor quality systems                              |               |
| MSMSUP404 | Coordinate maintenance   |               |
| MSMSUP405 | Identify problems in fluid power system                          |               |
| MSMSUP406 | Identify faults in electronic control system                     |               |
| MSMWHS400 | Contribute to WHS management system                              |               |
| MSMWHS401 | Assess risk  |               |
| MSS403085 | Ensure process improvements are sustained                        |               |
| MSS403011 | Facilitate implementation of competitive systems and practices   |               |
| MSS405013 | Lead team culture improvement                                    |               |
| MSS403086 | Improve cost factors in work practices                           |               |
| MSS403040 | Facilitate and improve implementation of 5S                      |               |

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|----------------|--|------------|
| MSS403054      | Facilitate breakthrough improvements                                   |            |
| MSS403087      | Mistake proof an operational process                                   |            |
| MSS404084      | Undertake process capability improvements                              | MSS404052A |
| MSS404054      | Apply statistics to operational processes                              |            |
| MSS404060      | Facilitate the use of planning software systems in a work area or team |            |
| MSS404085      | Undertake proactive maintenance analyses                               |            |
| MSS404086      | Assist in implementing a proactive maintenance strategy                |            |
| MSS404054      | Apply statistics to operational processes                              |            |
| PMAOMIR407     | Audit incident preparedness and established response systems           |            |
| PMAOMIR418     | Coordinate incident response   |            |
| PMAOMIR424     | Develop and maintain community relationships                           |            |
| PMAOMIR430     | Conduct and assess incident exercises                                  |            |
| PMAOMIR444     | Develop incident containment tactics                                   |            |
| PMAOMIR449     | Monitor legal compliance obligations during incidents                  |            |
| PMAOPS280      | Interpret process plant schematics                                     |            |
| PMAOPS350      | Match and adjust colour  |            |
| PMAOPS402      | Respond to abnormal process situations                                 | MSMSUP390  |
| PMAOPS405      | Operate complex control systems  |            |
| PMAOPS410      | Operate remote production facilities                                   |            |
| PMAOPS411      | Manage plant shutdown and restart                                      |            |
| PMAOPS433      | Manage wells and gathering systems                                     |            |
| PMAOPS434      | Commission wells and gathering systems                                 |            |

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| PMAOPS450 | Solve colour problems                              |           |
|-----------|--|-----------|
| PMAOPS460 | Monitor and operate tailings management facilities |           |
| PMASUP410 | Develop plant documentation                        |           |
| PMASUP420 | Minimise environmental impact of process           |           |
| PMASUP432 | Coordinate pipeline projects                       | MSMPER300 |
| PMASUP440 | Commission/recommission plant                      |           |
| PMASUP441 | Decommission plant                                 |           |
| PMASUP444 | Plan plant preparation and isolation               |           |
| PMASUP445 | Participate in HAZOP studies                       | PMAOPS280 |
| PMAWHS420 | Develop first aid procedures and manage resources  |           |
| TAEASS401 | Plan assessment activities and processes           |           |
| TAEASS402 | Assess competence                                  |           |
| TAEASS403 | Participate in assessment validation               |           |

Up to **two (2)** relevant units may be chosen from this Training Package, other endorsed Training Packages and accredited courses, where those units are packaged in a Certificate IV or above.

# Qualification Mapping Information

Release 2. Supersedes and is equivalent to PMA60116 Advanced Diploma of Process Plant Technology (Release 1).

Release 1. Supersedes and is equivalent to PMA60108 Advanced Diploma of Process Plant Technology.

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## Links

Companion Volume implementation guides are found in VETNet - <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875</a>

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