**Victorian Purchasing Guide**

**for**

**PMA Chemical, Hydrocarbons and Refining
Training Package**

**Release 2.0**

**February 2021**

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Victorian Purchasing Guide ⎯ Release History

**Note**: RTOs should refer to the National Register for the detail of changes made in each Release. (See [National Register](https://training.gov.au/Home/Tga) for more information)

| **Training Package Release**  | **Date VPGApproved** | Comments |
| --- | --- | --- |
| PMA Chemical, Hydrocarbons and Refining Training PackageRelease No 2.0 | 9 February 2021 | Release 2 of the PMA Chemical, Hydrocarbons and Refining Training Package reflects the update of PMA30120 Certificate III in Process Plant Operations which now includes seven new Gas/LNG specialisations.For detailed mapping of qualifications and units between PMA Release 2.0 and PMA Release 1.0, please refer to the PMA Chemicals, Hydrocarbons and Refining Training Package Implementation Guide [Companion Volume](https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875) |
| PMA Chemical, Hydrocarbons and Refining Training PackageRelease No 1.0 | 7 July2016 | Release 1 of the PMA Chemical, Hydrocarbons and Refining Training Package reflects the transitioning of the PMA08 Chemicals, Hydrocarbons and Refining Training Package to the new Standards for Training Packages. * PMA70108 Graduate Certificate in Surface Coating Technology is not carried forward.

This Victorian Purchasing Guide also reflects the changes made from Maximum Nominal Hours to Maximum and Minimum Payable Hours.For detailed mapping of qualifications and units between PMA R 1.0 and PMA08 please refer to the PMA Chemicals, Hydrocarbons and Refining Training Package Implementation Guide [Companion Volume](https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875) |

**PMA Chemical, Hydrocarbons and Refining
Training Package Release 2.0
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INTRODUCTION

What is a Victorian Purchasing Guide?

The Victorian Purchasing Guide provides information for use by Registered Training Organisations (RTOs) in the provision of Victorian government subsidised training.

Specifically the Victorian Purchasing Guide provides the following information related to the delivery of nationally endorsed Training Packages in Victoria:

* The maximum and minimum payable hours available for each qualification.
* Nominal hours for each unit of competency within the Training Package.

Registration

RTOs must be registered by either the Victorian Registration and Qualifications Authority (VRQA) or the Australian Skills Qualification Authority (ASQA) regulatory body to be eligible to issue qualifications and Statements of Attainment under the Australian Qualifications Framework (AQF).

The VRQA is the regulatory authority in Victoria responsible for the registration of Vocational Education and Training (VET) providers who offer courses to domestic students in Victoria only.

ASQA is the regulatory authority responsible for the registration of VET providers who offer training in Victoria, nationally and / or internationally.

Transition

The relationship between new units and any superseded or replaced units from the previous version of **PMA Chemical, Hydrocarbons and Refining Training Package Release 2.0** is provided in theTraining PackageCompanionVolume Implementation Guide. (See [Companion Volume](https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875)s for more information).

Information regarding transition arrangements can be obtained from the state or national VET Regulatory Authority (see Contacts and Links section).

RTOs must ensure that all training and assessment leading to issuance of qualifications or Statements of Attainment from the **PMA Chemical, Hydrocarbons and Refining Training Package Release 2.0** is conducted against the Training Package units of competency and complies with the assessment requirements.

QUALIFICATIONS

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Title** | **Minimum Payable Hours** | **Maximum Payable Hours** |
| PMA20116 | Certificate II in Process Plant Operations | 608 | 640 |
| PMA30120 | Certificate III in Process Plant Operations | 760 | 800 |
| PMA40116 | Certificate IV in Process Plant Technology | 1102 | 1160 |
| PMA50116 | Diploma of Process Plant Technology | 570 | 600 |
| PMA60116 | Advanced Diploma of Process Plant Technology | 884 | 930 |

UNITS OF COMPETENCY AND NOMINAL HOURS

| **Unit Code** | **Unit Title** | **Nominal Hours** |
| --- | --- | --- |
| PMAOMIR210 | Control evacuation to muster point | 20 |
| PMAOMIR301 | Undertake initial rescue | 60 |
| PMAOMIR302 | Respond to a helideck incident | 30 |
| PMAOMIR306 | Operate control panel during an emergency | 50 |
| PMAOMIR317 | Facilitate search and rescue operations | 40 |
| PMAOMIR322 | Manage incident response information | 40 |
| PMAOMIR323 | Manage communication systems during an incident | 30 |
| PMAOMIR346 | Assess and secure an incident site | 30 |
| PMAOMIR407 | Audit incident preparedness and established response systems | 80 |
| PMAOMIR418 | Coordinate incident response | 40 |
| PMAOMIR424 | Develop and maintain community relationships | 30 |
| PMAOMIR430 | Conduct and assess incident exercises | 35 |
| PMAOMIR444 | Develop incident containment tactics | 40 |
| PMAOMIR449 | Monitor legal compliance obligations during incidents | 40 |
| PMAOMIR512 | Establish incident response preparedness and response systems | 70 |
| PMAOMIR523 | Manage corporate media requirements in a crisis | 25 |
| PMAOMIR575 | Coordinate welfare support activities in response to an incident | 30 |
| PMAOMIR622 | Build partnerships to improve incident response capacity | 30 |
| PMAOMIR650 | Manage a crisis | 80 |
| PMAOPS101 | Read dials and indicators | 15 |
| PMAOPS105 | Select and prepare materials | 15 |
| PMAOPS201 | Operate fluid flow equipment | 60 |
| PMAOPS202 | Operate fluid mixing equipment | 20 |
| PMAOPS204 | Select and use utilities and services | 40 |
| PMAOPS205 | Operate heat exchangers | 40 |
| PMAOPS208 | Operate chemical separation equipment | 30 |
| PMAOPS210 | Operate solids handling equipment | 20 |
| PMAOPS211 | Operate manufacturing extrusion systems | 40 |
| PMAOPS213 | Package product/material | 20 |
| PMAOPS216 | Operate local control system | 40 |
| PMAOPS217 | Operate wet milling equipment | 40 |
| PMAOPS220 | Monitor chemical reactions in the process | 30 |
| PMAOPS221 | Operate and monitor prime movers | 40 |
| PMAOPS222 | Operate and monitor pumping systems and equipment | 40 |
| PMAOPS223 | Operate and monitor valve systems | 20 |
| PMAOPS224 | Provide fluids for utilities and support | 20 |
| PMAOPS226 | Monitor and operate flare systems | 30 |
| PMAOPS230 | Monitor, operate and maintain pipeline stations and equipment | 40 |
| PMAOPS231 | Control gas odourisation | 10 |
| PMAOPS232 | Operate filtration equipment | 40 |
| PMAOPS233 | Monitor wells and gathering systems | 30 |
| PMAOPS234 | Monitor and operate low pressure compressors | 30 |
| PMAOPS236 | Monitor continuous process plant | 40 |
| PMAOPS240 | Store fluids in bulk | 30 |
| PMAOPS241 | Operate Joule-Thomson effect device | 30 |
| PMAOPS242 | Moor ships for transfer of bulk processed particulates or fluids | 30 |
| PMAOPS246 | Operate separation equipment | 15 |
| PMAOPS247 | Operate powered separation equipment | 15 |
| PMAOPS260 | Conduct screening operations | 30 |
| PMAOPS261 | Operate bulk solids loading equipment | 30 |
| PMAOPS262 | Operate digestion equipment | 30 |
| PMAOPS263 | Operate leaching equipment | 30 |
| PMAOPS264 | Operate solvent extraction equipment | 30 |
| PMAOPS265 | Operate magnetic/electrical separation equipment | 30 |
| PMAOPS280 | Interpret process plant schematics | 20 |
| PMAOPS290 | Operate a biotreater | 30 |
| PMAOPS306 | Operate and troubleshoot production unit | 40 |
| PMAOPS309 | Operate solids handling/storage facility | 40 |
| PMAOPS310 | Operate and troubleshoot distillation system | 40 |
| PMAOPS311 | Operate and troubleshoot reactors and reaction equipment | 40 |
| PMAOPS313 | Operate and troubleshoot furnaces to induce reaction | 50 |
| PMAOPS314 | Operate and troubleshoot compressor systems | 30 |
| PMAOPS315 | Operate and troubleshoot process control systems | 60 |
| PMAOPS316 | Organise storage and logistics of general materials | 20 |
| PMAOPS317 | Undertake ship transfer operations | 40 |
| PMAOPS318 | Conduct artificial lift | 20 |
| PMAOPS319 | Adjust batch | 40 |
| PMAOPS322 | Undertake well management | 40 |
| PMAOPS328 | Operate and troubleshoot heating furnace | 40 |
| PMAOPS331 | Operate and troubleshoot gas turbine system | 50 |
| PMAOPS332 | Generate electrical power | 30 |
| PMAOPS334 | Operate and troubleshoot gas absorption system | 40 |
| PMAOPS336 | Operate and troubleshoot fixed-bed adsorption system | 40 |
| PMAOPS337 | Operate and troubleshoot liquid extraction system | 40 |
| PMAOPS338 | Communicate and monitor pipeline activities | 40 |
| PMAOPS339 | Operate and troubleshoot wells and gathering systems | 30 |
| PMAOPS341 | Operate and troubleshoot cryogenic processes | 40 |
| PMAOPS342 | Conduct pipeline pigging | 20 |
| PMAOPS343 | Transfer bulk fluids into/out of storage facility | 40 |
| PMAOPS344 | Operate and troubleshoot flare system | 40 |
| PMAOPS345 | Operate and troubleshoot gas treatment process | 60 |
| PMAOPS346 | Operate and troubleshoot liquefaction process | 40 |
| PMAOPS347 | Create and conduct isolations in the workplace | 60 |
| PMAOPS348 | Operate safety, protection and shutdown systems | 50 |
| PMAOPS349 | Operate and troubleshoot hydraulic systems | 40 |
| PMAOPS350 | Match and adjust colour | 50 |
| PMAOPS351 | Operate and troubleshoot turret swivel systems | 40 |
| PMAOPS352 | Operate and troubleshoot instrument and plant air systems | 40 |
| PMAOPS353 | Operate and troubleshoot heating, ventilation and air conditioning systems | 60 |
| PMAOPS354 | Operate and troubleshoot inert gas generation systems | 40 |
| PMAOPS355 | Operate and troubleshoot fuel systems | 40 |
| PMAOPS356 | Operate and troubleshoot water treatment systems | 60 |
| PMAOPS357 | Operate and troubleshoot produced water and water injection systems | 40 |
| PMAOPS358 | Process design fundamentals | 40 |
| PMAOPS359 | Operate and troubleshoot process measurement and control systems | 40 |
| PMAOPS360 | Operate a metalliferous kiln/furnace | 40 |
| PMAOPS361 | Operate a smelting furnace | 40 |
| PMAOPS362 | Operate a blast furnace | 40 |
| PMAOPS363 | Operate and troubleshoot export systems | 30 |
| PMAOPS364 | Operate an electrochemical process | 40 |
| PMAOPS365 | Operate pelletising equipment | 30 |
| PMAOPS366 | Operate sintering equipment | 30 |
| PMAOPS367 | Operate and troubleshoot cooling water systems | 40 |
| PMAOPS368 | Operate and troubleshoot heating medium/hot oil systems | 40 |
| PMAOPS369 | Operate and troubleshoot drain and vent systems | 30 |
| PMAOPS370 | Operate and troubleshoot condensate stabilisation systems | 40 |
| PMAOPS390 | Operate a biochemical process | 40 |
| PMAOPS402 | Respond to abnormal process situation | 50 |
| PMAOPS405 | Operate complex control systems | 80 |
| PMAOPS410 | Operate remote production facilities | 40 |
| PMAOPS411 | Manage plant shutdown and restart | 40 |
| PMAOPS433 | Manage wells and gathering systems | 40 |
| PMAOPS434 | Commission wells and gathering systems | 40 |
| PMAOPS450 | Solve colour problems | 50 |
| PMAOPS460 | Monitor and operate tailings management facilities | 50 |
| PMAOPS500 | Optimise production systems | 100 |
| PMAOPS501 | Provide operational expertise to a project team | 80 |
| PMAOPS505 | Control the process during abnormal situations | 80 |
| PMAOPS511 | Determine energy transfer loads | 40 |
| PMAOPS512 | Determine mass transfer loads | 40 |
| PMAOPS520 | Manage utilities | 50 |
| PMAOPS521 | Plan plant shutdown | 50 |
| PMAOPS522 | Coordinate plant shutdown | 50 |
| PMAOPS550 | Develop a colour formulation | 60 |
| PMAOPS560 | Plan and design tailings management facilities | 80 |
| PMAOPS600 | Modify plant | 60 |
| PMAOPS601 | Debottleneck plant | 60 |
| PMAOPS751 | Apply physiochemical knowledge to select raw materials for surface coatings | 80 |
| PMAOPS752 | Develop a decorative coating | 60 |
| PMAOPS753 | Develop a non-decorative coating or ink | 60 |
| PMAOPS755 | Provide surface coatings application advice | 60 |
| PMASMELT260 | Form carbon anodes | 40 |
| PMASMELT261 | Bake carbon anodes | 30 |
| PMASMELT262 | Clean and strip anode rods | 30 |
| PMASMELT263 | Spray carbon anodes | 40 |
| PMASMELT264 | Start up reduction cells | 60 |
| PMASMELT265 | Operate reduction cells | 60 |
| PMASMELT266 | Deliver molten metal | 30 |
| PMASMELT267 | Cast ingots | 40 |
| PMASMELT268 | Operate vertical direct casting process | 60 |
| PMASMELT269 | Operate cell tending equipment | 30 |
| PMASMELT270 | Supply product from reduction cells | 30 |
| PMASUP236 | Operate vehicles in the field | 20 |
| PMASUP237 | Undertake crane, dogging and load transfer operations | 40 |
| PMASUP241 | Maintain pipeline easements | 20 |
| PMASUP242 | Monitor pipeline civil works | 20 |
| PMASUP243 | Monitor and maintain pipeline coatings | 20 |
| PMASUP244 | Prepare and isolate plant | 50 |
| PMASUP245 | Break and make flanged joints using hand tools | 30 |
| PMASUP246 | Disconnect and reconnect non-flared tube fitting joints | 30 |
| PMASUP305 | Operate offshore cranes | 80 |
| PMASUP311 | Operate communications hub | 40 |
| PMASUP341 | Monitor and maintain instrument and control systems | 40 |
| PMASUP342 | Monitor and maintain electrical systems | 40 |
| PMASUP345 | Monitor vibration | 60 |
| PMASUP347 | Undertake corrosion inspection on process plant | 40 |
| PMASUP348 | Monitor and maintain cathodic protection systems | 20 |
| PMASUP349 | Monitor and control repairs and modifications on operational pipe | 40 |
| PMASUP350 | Control corrosion | 40 |
| PMASUP410 | Develop plant documentation | 30 |
| PMASUP420 | Minimise environmental impact of process | 40 |
| PMASUP432 | Coordinate pipeline projects | 40 |
| PMASUP440 | Commission/recommission plant | 40 |
| PMASUP441 | Decommission plant | 20 |
| PMASUP444 | Plan plant preparation and isolation | 50 |
| PMASUP445 | Participate in HAZOP studies | 40 |
| PMASUP520 | Review procedures to minimise environmental impact of process | 40 |
| PMASUP540 | Analyse equipment performance | 50 |
| PMASUP620 | Manage environmental management system | 60 |
| PMAWHS211 | Prepare equipment for emergency response | 20 |
| PMAWHS213 | Undertake fire control and emergency rescue | 15 |
| PMAWHS214 | Undertake helicopter safety and escape | 30 |
| PMAWHS215 | Apply offshore facility abandonment and sea survival procedures and practices | 20 |
| PMAWHS221 | Maintain first aid resources and records | 10 |
| PMAWHS310 | Investigate incidents | 30 |
| PMAWHS311 | Lead emergency teams | 20 |
| PMAWHS312 | Command the operation of survival craft | 40 |
| PMAWHS320 | Provide advanced first aid response | 20 |
| PMAWHS321 | Provide first aid response in remote and/or isolated area | 25 |
| PMAWHS420 | Develop first aid procedures and manage resources | 40 |
| PMAWHS502 | Contribute to safety case | 40 |
| PMAWHS511 | Manage emergency incidents | 40 |

CONTACTS AND LINKS

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| **Curriculum Maintenance Manager (CMM)** |
| General Manufacturing | The CMM Service is provided on behalf of Higher Education and Skills.CMM Service Executive Officers can assist with questions on payable and nominal hours. | Name: Paul Saunders Address: Chisholm Institute, PO Box 684, Dandenong, Victoria, 3175.Phone: 03 9238 8448Email: paul.saunders@chisholm.edu.au  |
| **Service Skills Organisation (SSO)** |
| Innovation & Business Skills Australia (IBSA) | This SSO is responsible for developing this **PMA Chemical, Hydrocarbons and Refining Training Package** and can be contacted for further information.  | Phone: 03 9815 7099Email: manufacturing@ibsa.org.auSee [SSO website](https://ibsa.org.au/) for further information. |
| **National Register for VET in Australia** |
| Training.gov.au (TGA) | TGA is the Australian government’s official National Register of information on Training Packages, qualifications, courses, units of competency and RTOs. | See the [National Register](http://training.gov.au/) for more information. |
| **Australian Government** |
| Department of Education, Skills and Employment. | The Commonwealth Department is responsible for national policies and programmes that help Australians access quality vocational education and training.  | See the [Commonwealth Department of Education, Skills and Employment website](https://www.dese.gov.au/) for more information.  |
| **State Government** |
| Department of Education and Training (DET)  | DET is the State Training Authority responsible for supporting implementation of Vocational Education and Training (VET) in Victoria.  | (03) 9637 2000See the [Victorian Department of Education and Training website](http://www.education.vic.gov.au/) for more information. |
| **National VET Regulatory Authority** |
| Australian Skills Quality Authority (ASQA) | ASQA is the national regulator for Australia’s VET sector.  | Info line: 1300 701 801 See the [ASQA website](http://www.asqa.gov.au/) for more information. |
| **Victorian State VET Regulatory Authority** |
| Victorian Registration and Qualifications Authority (VRQA) | The VRQA is a statutory authority responsible for the registration and regulation of Victorian RTOs and for the regulation of apprenticeships and traineeships in Victoria. | (03) 9637 2806 See the [VRQA website](http://www.vrqa.vic.gov.au/) for more information.  |

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| **Industry Regulatory Bodies** |
| WorkSafe Victoria | The industry Regulatory body can provide advice on licensing, legislative or regulatory requirements which may impact on the delivery of training or the issuance of qualifications in this Training Package. WorkSafe needs to provide written verification before High Risk Work Units can be added to an RTO’s scope of registration. | Address: 222 Exhibition Street, Melbourne, 3000. Phone: (03) 9641 1444 or 1800 136 089 (toll free)Email: Here. See [Worksafe Victoria’s](http://www.worksafe.vic.gov.au/) website for further information.  |

GLOSSARY

|  |  |
| --- | --- |
| **Code** | Nationally endorsed Training Package qualification code. |
| **Title** | Nationally endorsed Training Package qualification title. |
| **Unit Code** | Nationally endorsed Training Package unit code. |
| **Unit Title** | Nationally endorsed Training Package unit title. |
| **Maximum Payable Hours** | The maximum number of hours the Victorian Government will subsidise under Skills First funding for the achievement of the minimum realistic vocational outcome of the qualification, as determined by the qualification packaging rules.  The Maximum Payable Hours do not cover every possible combination of core and elective units available for a specific qualification.   Minimum payable hours reflect a calculated minimum number of hours that could deliver a minimum realistic vocational outcome, based on efficiencies of contextualisation and integration. |
| **Scope of Registration** | Scope of registration specifies the AQF qualifications and/or units of competency the training organisation is registered to issue and the industry training and/or assessment services it is registered to provide. |
| **Nominal Hours** | Nominal hours reflect the anticipated time taken to deliver and assess the outcomes of a unit of competency excluding unsupervised delivery or the time taken for repeated practical application of skills. Nominal hours are determined by the Victorian State Training Authority (DET) and are primarily developed for funding purposes in Victoria. |