

**Modification history**

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 1.0.

FBPGPS2008	Operate a neutralisation process
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a neutralisation process to remove impurities from crude oils.</p> <p>This unit applies to individuals who apply basic operating principles to the operation and monitoring of a neutralisation process in an edible oils production environment. Processes may be batch or continuous, and apply to single or multiple product types.</p> <p>All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.</p> <p>No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
<b>Prerequisite Unit</b>	Nil
<b>Unit Sector</b>	Grocery and product supplies (GPS)

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the neutralisation and related equipment for operation	1.1 Ensure oil stock and emulsion are available according to production requirements 1.2 Identify and confirm cleaning and maintenance requirements have been met 1.3 Enter processing or operating parameters to meet safety and production requirements 1.4 Check and adjust equipment performance as required 1.5 Conduct pre-start checks according to operator instructions
2. Operate and monitor the neutralisation process	2.1 Start up and operate the neutralisation process according to work health and safety and operating procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Identify variation in equipment operation and report maintenance requirements 2.4 Confirm that specifications are met at each stage according to production specifications 2.5 Identify, rectify or report out-of-specification product and process outcomes according to workplace procedures 2.6 Maintain the work area according to workplace guidelines 2.7 Enter workplace records in required format
3. Shut down the neutralisation process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to operating procedures 3.3 Identify and report maintenance requirements

<b>Foundation Skills</b>	
<i>This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.</i>	
<b>Skill</b>	<b>Description</b>
Reading	<ul style="list-style-type: none"> <li>Read and interpret standard operating procedures for the neutralisation process</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records according to workplace guidelines on paper-based and electronic media</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor control points for neutralisation process, including oil temperature, pressures, flow rates and chemical dosage</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements</li> <li>Maintain a clean and hazard-free work area</li> <li>Maintain hygiene standards</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Report operational and safety information to relevant personnel using required communication method</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Solve routine problems according to workplace guidelines and using experience of past solutions</li> </ul>

<b>Unit Mapping Information</b>			
<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
FBPGPS2008 Operate a neutralisation process	FDFGPS2008A Operate a neutralisation process	Updated to meet Standards for Training Packages	Equivalent unit

<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4">https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4</a>
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<b>TITLE</b>	<b>Assessment requirements for FBPGPS2008 Operate a neutralisation process</b>
<b>Performance Evidence</b>	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that, on at least one occasion, the individual has:</p> <ul style="list-style-type: none"> <li>• conducted pre-start checks on machinery used for neutralisation</li> <li>• started, operated, monitored and adjusted neutralisation process equipment to remove impurities from crude oils to achieve required quality outcomes</li> <li>• taken corrective action in response to typical faults and inconsistencies</li> <li>• applied safe work practices and identified work health and safety hazards and controls</li> <li>• completed workplace records in required format</li> <li>• safely shut down equipment</li> <li>• applied food safety procedures to work practices.</li> </ul>	
<b>Knowledge Evidence</b>	
<p>An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:</p> <ul style="list-style-type: none"> <li>• purpose and basic principles of the neutralisation process, including the type of alkali used, and the degumming process to prepare oil for neutralisation</li> <li>• basic operating principles of equipment, including: <ul style="list-style-type: none"> <li>• main equipment components</li> <li>• status and purpose of guards</li> <li>• equipment operating capacities and applications</li> <li>• the purpose and location of sensors and related feedback instrumentation</li> </ul> </li> <li>• services required for a neutralisation process and action to take, if services are not available</li> <li>• the flow of the neutralisation process and the effect of outputs on downstream edible oils and fats processes</li> <li>• quality characteristics to be achieved by the neutralisation process</li> <li>• quality requirements of inputs and effect of variation in oil quality on neutralisation process performance</li> <li>• operating requirements and parameters, and corrective action required where operation is outside specified operating parameters</li> <li>• typical equipment faults and related causes, including: <ul style="list-style-type: none"> <li>• signs and symptoms of faulty equipment</li> <li>• early warning signs of potential problems</li> </ul> </li> <li>• methods used to monitor the neutralisation process, including inspecting, measuring and testing as required by the process</li> <li>• inspection or test points (control points) in the neutralisation process and the related procedures and recording requirements</li> <li>• contamination and food safety risks associated with the neutralisation process and related control measures</li> <li>• common causes of variation and corrective action required</li> <li>• work health and safety hazards and controls</li> <li>• requirements of different shutdowns as appropriate to the neutralisation process and workplace production requirements, including: <ul style="list-style-type: none"> <li>• emergency and routine shutdowns</li> <li>• procedures to follow in the event of a power outage</li> </ul> </li> <li>• isolation, lock out and tag out procedures and responsibilities</li> <li>• procedures and responsibility for reporting production and performance information</li> <li>• environmental issues and controls relevant to the neutralisation process, including waste/rework collection and handling procedures related to the process</li> <li>• basic operating principles of process control, including the relationship between control panels and systems and the physical equipment</li> <li>• routine maintenance procedures for neutralisation equipment</li> <li>• cleaning and sanitation procedures for neutralisation equipment.</li> </ul>	

<b>Assessment Conditions</b>	
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"><li>• physical conditions:<ul style="list-style-type: none"><li>• a workplace or an environment that accurately represents workplace conditions</li></ul></li><li>• resources, equipment and materials:<ul style="list-style-type: none"><li>• personal protective clothing and equipment</li><li>• neutralisation process and related equipment and services</li><li>• oil required for the neutralisation process, and acid and alkali materials as required by the process</li><li>• sampling schedules, and test procedures and equipment</li><li>• cleaning procedures, materials and equipment</li></ul></li><li>• specifications:<ul style="list-style-type: none"><li>• work procedures, including advice on safe work practices, food safety, quality and environmental requirements</li><li>• information on equipment capacity and operating parameters</li><li>• production schedule/batch instructions</li><li>• specifications, control points and processing parameters</li><li>• documentation and recording requirements and procedures</li></ul></li><li>• relationships:<ul style="list-style-type: none"><li>• interactions with team members and supervisors.</li></ul></li></ul> <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>	
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