

Modification history

Release	Comments
Release 1	This version released with AMP Australian Meat Processing Training Package Version 7.0.

AMPREN30X83	Operate and monitor a continuous dry rendering process
Application	<p>This unit describes the skills and knowledge required to operate and monitor a continuous dry rendering process including loading raw material, operation, monitoring and shut down.</p> <p>The unit applies to individuals who work under broad direction in industrial meat rendering plant and are responsible for operating and monitoring a continuous dry rendering process. They provide and communicate solutions to a range of predictable problems.</p> <p>All work must be carried out to comply with workplace procedures, according to state/territory health and safety, environmental and meat rendering regulations, legislation and standards that apply to the workplace.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
Prerequisite Unit	Nil
Unit Sector	Rendering (REN)

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 to feed cooker	1.1 Confirm product specifications and set cooker parameters 1.2 Identify hazards, assess and control risks according to workplace health and safety procedures 1.3 Identify food safety hazards, assess and control risks according to Hazard Analysis and Critical Control Point (HACCP) principles 1.4 Select and fit PPE and contamination control clothing 1.5 Undertake preoperational checks of plant and equipment according to workplace procedures and/or manufacturer requirements 1.6 Clean and sanitise tools and equipment according to contamination control 1.7 Load raw materials into cooker according to safety and contamination control requirements
2. Operate and monitor cooker	2.1 Start up cooker according to workplace procedures 2.2 Monitor flow into cooker and check levels 2.3 Adjust temperature according to product requirements 2.4 Monitor and adjust outflow according to workplace requirements 2.5 Separate solid material from tallow according to workplace procedures 2.6 Operate meal size reduction equipment according manufacturer instructions 2.7 Take samples and test batch to ensure it is cooked to specifications
3. Monitor environmental controls	3.1 Monitor vapours to ensure they are condensed according to regulatory requirements 3.2 Monitor non-condensed emissions to scrubber, bio-filter and/or after burner according to regulatory requirements 3.3 Monitor waste water discharge according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
4 Shut down continuous rendering process	4.1 Clean cooking equipment and report maintenance requirements 4.2 Identify the appropriate shutdown procedure 4.3 Shut the process down safely according to operating procedures 4.4 Identify and report maintenance requirements in line with workplace procedures 4.5 Maintain workplace records in appropriate format

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Foundation Skills

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.

Skill	Description
Reading	<ul style="list-style-type: none"> Interpret operating manuals for batch cooking equipment
Writing	<ul style="list-style-type: none"> Complete records using industry terminology
Oral Communication	<ul style="list-style-type: none"> Use open and closed questions to clarify information
Numeracy	<ul style="list-style-type: none"> Estimate and measure volume, time, temperature and pressure

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AMPREN30X83 Operate and monitor a continuous dry rendering process	AMPA3083 Operate continuous cooker	New unit code and title New Unit Sector Updated qualification description Updated Elements and Performance Criteria Added Foundation Skills Revised Performance Evidence and Knowledge Evidence Clarified Assessment Conditions	Not equivalent
AMPREN30X83 Operate and monitor a continuous dry rendering process	AMPA3084 Operate press	Redesigned unit that includes content from AMPA3083 Operate continuous cooker and AMPA3084 Operate press	Not equivalent

Links	
	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7

TITLE	Assessment requirements for AMPREN30X83 Operate and monitor a continuous dry rendering process
Performance Evidence	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has operated and monitored a continuous dry rendering process on two separate occasions and has:</p> <ul style="list-style-type: none"> • identified at least three food safety hazards and controlled risk using HACCP principles • identified at least three safety hazards, assessed and controlled risk using workplace health and safety procedures • selected and correctly fitted appropriate personal protective equipment (PPE) required for worker safety and contamination control • checked raw materials, including correct labels, temperature, condensate, particle size and colour • loaded and unloaded cooker according to workplace procedures • operated cooker and monitored temperature and made adjustments according to product specifications • tested product samples to ensure materials are cooked to specifications • monitored cooker including: <ul style="list-style-type: none"> • settings of variable speed drive screws • temperature comes up slowly • cooker shaft amps • sight glass levels • surges in raw material feed • monitored emissions and recorded according to workplace and regulatory requirements • completed production records according to workplace requirements 	
Knowledge Evidence	
<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"> • basic operating principles of a continuous dry rendering process • key features of HACCP principles related to continuous dry rendering cooking processes • workplace health and safety requirements of continuous dry rendering process • features, benefits, limitations, and correct fit of PPE for continuous dry rendering cooking processes • key features of quality assurance aspects of cooked product, including: <ul style="list-style-type: none"> • colour and density of cooked products • end-point temperature • correct level of moisture content • quality requirements of finished products including: <ul style="list-style-type: none"> • tallow moisture insolubles and Free Fatty Acids (FFA) • meat meal moisture, fat content, protein, microbiological and physical contamination • implications on product quality and productivity of incorrect load in cooker • effects of incorrect startup, including: <ul style="list-style-type: none"> • over shot end point temperature • foaming • AS5008 Hygienic rendering of animal products • Australian Renderers Association's Code of practice for hygienic rendering of animal products • State and territory Environment Protection Authority (EPA) requirements for control of non-condensable gases • implications on product quality and productivity of incorrect load in cooker • production problems and out-of-specification product and take corrective action • features and functions of continuous dry rendering cooking machinery and equipment, including: <ul style="list-style-type: none"> • manufacturer and workplace instructions for safe operation • control panels and ancillary controls • operating capacities, efficiencies and applications 	

Knowledge Evidence

- location and purpose of guards, rails and sensors
- feedback instrumentation
- services required, including compressed air, electricity and water
- workplace cleaning and maintenance requirements for continuous dry rendering cooking plant and equipment.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a registered, operating meat rendering plant
- resources, equipment and materials:
 - industrial meat rendering plant and equipment required for the tasks specified in the performance evidence
 - raw materials specified in the performance evidence
 - PPE and contamination control equipment clothing required for the tasks specified in the performance evidence
 - reporting and recording formats
- specifications:
 - two dry rendering work orders stipulated in the performance evidence
 - workplace procedures for a dry rendering process and operation of plant and equipment stipulated in the performance evidence
 - workplace procedures for worker safety and contamination control
- relationships:
 - supervisor and others stipulated in the performance evidence
- timeframes
 - competency must be demonstrated at the normal rate of production for that rendering plant.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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