



Australian Government

AMPREN306 Render edible products

Release: 1

AMPREN306 Render edible products

Modification History

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

Application

This unit of competency describes the skills and knowledge required to operate rendering equipment and produce an edible product, including preparation, loading raw material, operation, monitoring and shut down of the rendering processes.

This unit applies to individuals who work under broad direction in an industrial rendering plant and who are responsible for operating and monitoring a rendering process. It includes safety compliance using Hazard Analysis and Critical Control Point (HACCP) techniques, process and product quality requirements, and solving problems that arise with the process.

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.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Rendering (REN)

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for operation of rendering process	1.1 Check work order, operational status of services and availability of consumables 1.2 Identify hazards, assess and control risks according to workplace

Elements	Performance Criteria
Elements describe the essential outcomes.	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	health and safety procedures 1.3 Identify food safety hazards, assess and control risks according to HACCP principles 1.4 Select and fit personal protective equipment and contamination control equipment 1.5 Undertake preoperational checks of machinery and equipment according to workplace procedures and/or manufacturer requirements 1.6 Clean and sanitise tools and equipment according to contamination control 1.7 Undertake workplace procedures for safe movement of workers and visitors in and around rendering plant and equipment 1.8 Identify emergency stops and isolation controls in work area
2. Receive and check raw materials	2.1 Receive raw materials from approved suppliers and/or internal sources 2.2. Control transfer of raw materials into bulk bins and/or the processing equipment according to workplace procedures 2.3 Check raw material for compliance with raw material specification and regulatory requirements 2.4 Report defects in raw materials promptly and take corrective action
3. Operate and monitor rendering process	3.1 Start up and monitor rendering machinery plant and equipment according to product requirements 3.2 Monitor and adjust rendering temperature and duration to achieve required finished product specifications 3.3 Discharge product effectively and adjust outflow according to workplace procedures 3.4 Take and test samples to ensure compliance with product specifications according to workplace quality assurance (QA) program 3.5 Monitor odours and other environmental emissions according to workplace procedures 3.6 Identify sources of potential product contamination and take preventative measures 3.7 Identify production problems and rectify processing faults according to workplace procedures 3.8 Maintain cleanliness of work area in accordance with hygiene and

Elements	Performance Criteria
Elements describe the essential outcomes.	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	safety requirements
4. Package and label finished product	4.1 Inspect rendered products to confirm all product specifications are met in readiness for packaging 4.2 Package rendered products using approved materials and label according to client, QA program, traceability, regulatory and export requirements 4.3 Transfer products to approved storage areas according to workplace procedures 4.4 Isolate samples of bagged product for future testing according to QA program 4.5 Dispatch packaged products according to workplace procedures
5. Shut down rendering process	5.1 Perform rendering process shutdown according to workplace procedures 5.2 Clean machinery, equipment and work areas according to QA program, regulatory and hygiene requirements 5.3 Identify and report maintenance requirements according to workplace 5.4 Maintain workplace records in appropriate format 5.5 Conduct handover of rendering process for edible product to another team member when required

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	- Interpret operating manuals for equipment used to render edible products - Read and interpret gauges and symbols - Interpret and check work orders
Writing	- Complete records using industry terminology - Sign work orders

Skill	Description
Oral Communication	• Use open and closed questions to clarify information • Use active listening, including paraphrasing
Numeracy	• Estimate and measure volume (mls, L), temperature (degrees Celsius), moisture percentage • Interpret data to identify levels of contamination

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AMPREN306 Render edible products	AMPA3089 Produce rendered products hygienically	Unit merged with AMPA3090 Render edible products Unit sector added Unit code and title changed to better reflect work task	Not equivalent
AMPREN306 Render edible products	AMPA3090 Render edible products	Unit merged with AMPA3089 Produce rendered products hygienically Unit sector added Unit code changed to better reflect work task Application changed to better reflect work task New elements 4 and 5 added Performance criteria added, revised, reordered, or merged for clarity Foundation skills added Performance Evidence, Knowledge Evidence and Assessment Conditions updated	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>

Assessment Requirements for AMPREN306 Render edible products

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has set up, operated, monitored, shut down and cleaned industrial rendering processes to convert raw materials into edible products according to specific work orders, on at least two occasions.

For each process, there must be evidence that the individual has:

- verbally confirmed work order, product quality requirements and availability of consumables
- identified at least three different hazards, assessed and controlled risk using Hazard Analysis and Critical Control Point (HACCP) principles and workplace health and safety requirements
- 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) and clothing required for worker safety and food contamination control.
- conducted preoperational check of machinery and equipment including access to emergency stops and isolation controls in work area
- visually checked raw materials for potential contaminants
- set up and calibrated rendering equipment, including temperature and duration
- prevented contamination of products during transfer of raw materials
- monitored and adjusted rendering process including:
 - quality of raw materials
 - flow of raw materials
 - rendering time
 - temperature
 - moisture content
 - product texture

- observed temperature and pressure gauges and adjusted equipment to meet product and safety requirement
- collected and tested at least three product samples to ensure product is rendered to specifications
- confirmed the finished product meets workplace and customer requirements
- identified and taken corrective action for two of the following:
 - over-rendering
 - under-rendering
 - spills
 - cross contamination
 - out-of-specification product
- monitored environmental emissions according to workplace and environmental regulatory requirements, including:
 - odour control
 - noise
 - heat recovery
 - waste water
- performed plant shutdown according to workplace procedures
- completed written production records, including quantity and quality, using accurate industry terminology
- communicated verbally using accurate industry terminology with a supervisor and at least one of the following:
 - maintenance team member
 - quality assurance team member
 - packaging team member.

Knowledge Evidence

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:

- purpose and steps related to rendering process
- features and functions of rendering machinery and equipment
- features, benefits, limitations, and correct fit of PPE for rendering edible products process
- key features of workplace health and safety requirements to operate a rendering edible products process
- features and functions of emergency stops, isolation controls and ancillary controls in work area
- key features of HACCP principles related to rendering edible products processes
- workplace procedures for safe movement of workers and visitors in and around rendering plant and equipment
- location and purpose of guards, rails and sensors
- feedback instrumentation

- raw materials quality requirements, including:
 - temperature
 - particle size
- key features of quality assurance aspects of rendered product, including:
 - colour and density of rendered product
 - friability of rendered product
 - end-point temperature
 - correct level of moisture content
 - correct texture of product
- implications on product quality and productivity of incorrect load in rendered equipment
- bacteria types and quantity allowable
- AS5008 Hygienic Rendering of Animal Products
- Australian Renderers Association's Code of Practice for Hygienic Rendering of Animal Products
- environmental regulatory requirements that apply to rendering edible product process emissions including:
 - odour control
 - noise
 - heat recovery
 - waste water
- manufacturer and workplace instructions for safe operation
- operating capacities, efficiencies and applications
- services required, including compressed air, electricity and water
- workplace cleaning and maintenance requirements for rendering edible product machinery and equipment
- regulatory requirements for the rendering of the edible product
- operating and work procedures for rendering equipment, including maintenance
- relevant product and client specifications
- sampling, monitoring and documentation procedures relevant to the process and end products
- possible sources of contamination of the product and the relevant preventative measures.

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 meat rendering plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - rendering equipment and machinery
 - PPE for rendering process

- specifications:
 - two rendering edible product work orders stipulated in the performance evidence
 - workplace procedures for rendering edible product process and operation of machinery and equipment as stipulated in the performance evidence
 - workplace procedures for worker safety and contamination control
 - specific workplace documents such as workplace procedures and quality assurance system
 - manufacturer operating instructions for specific equipment and machinery.

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

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