



Australian Government

Assessment Requirements for AMPREN301 Operate and monitor a batch rendering process

Release: 1

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Modification History

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

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 and shut down industrial batch rendering processes to convert raw materials into finished products according to specific work orders on at least two occasions.

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

- confirmed the product quantity and quality requirements
- identified at least three food safety hazards, assessed and controlled risk using Hazard Analysis and Critical Control Point (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) and clothing required for worker safety and food contamination control
- checked raw materials, including correct labels, temperature, moisture, particle size and colour, set up and calibrated rendering equipment, including temperature, and rendering duration
- loaded and unloaded raw materials, and monitored and adjusted their flow and quality according to product requirements
- observed temperature and pressure gauges and adjusted equipment to meet product and safety requirements
- collected and tested at least three product samples to ensure rendered specifications are met
- identified and taken corrective action for two of the following:
 - over-rendering
 - under-rendering
 - spills
 - cross contamination
- applied liquid discharge management requirements

- monitored environmental emissions according to workplace and Environmental Protection Agency (EPA) requirements, including odour control and one of the following:
 - waste water
 - heat recovery
 - noise
- communicated verbally on batch rendering process, product or equipment using industry terminology with a supervisor, and at least one of the following:
 - maintenance team member
 - quality assurance team member
 - environmental management team member
- completed production records, including product and equipment issues, according to workplace requirements.

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:

- basic operating principles of the batch rendering process
- features and functions of batch rendering machinery and equipment, including:
 - manufacturer and workplace instructions for safe operation
 - control panels and ancillary controls
 - operating capacities, efficiencies and applications
 - location and purpose of guards, rails and sensors
 - feedback instrumentation
- services required for operating a batch rendering process, including:
 - compressed air
 - electricity and water
 - workplace health and safety requirements
- key features of HACCP techniques related to batch rendering processes
- workplace procedures for safe movement of workers and visitors in and around the plant, rendering machinery and equipment
- features, benefits, limitations, and correct fit of PPE for batch rendering processes
- raw materials quality requirements, including:
 - temperature
 - particle size
- cooked meat product requirements, including:
 - moisture content
 - structure, including friability, density
- key features of quality assurance aspects of cooked product, including:
 - colour and density of cooked products
 - end-point temperature

- correct level of moisture content
- permissible bacteria types and quantity/quality requirements of finished products including:
 - 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 over-rendering and causes of typical faults and how they can be rectified according to workplace requirements, including:
 - bleached colour of the tallow
 - effect of fines on tallow quality
 - damage to amino acids
- AS5008 Hygienic Rendering of Animal Products
- Australian Renderers Association's Code of Practice for Hygienic Rendering of Animal Products
- workplace cleaning and maintenance requirements for batch cooking plant and equipment
- workplace and EPA requirements for monitoring environmental emissions, including odour control, waste water, heat recovery and noise as applicable.

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:
 - industrial batch cooking plant and equipment required for the tasks specified in the performance evidence
 - raw materials specified in the performance evidence
 - PPE and contamination control equipment and clothing required for the tasks specified in the performance evidence
- specifications:
 - two batch cooking work orders stipulated in the performance evidence
 - workplace procedures for a batch cooking 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 the rendering plant.

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

Links

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