



Australian Government

Assessment Requirements for AMPREN304 Operate a tallow refining 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 the individual has set up, operated, monitored and shut down two separate industrial tallow refining processes to produce tallow from different rendered meat raw materials. One process must be for refined liquid tallow production and one process must be for refined solid tallow production.

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

- 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 contamination control
- operated tallow separation and filtration equipment, including at least two of the following:
 - press or decanter
 - screening
 - settling tanks
- monitored temperature and made adjustments according to work instructions and product specifications
- monitored environmental emissions according to workplace and Environmental Protection Agency (EPA) requirements, including odour control and one of the following:
 - waste water
 - oil and grease
- recorded emissions data according to workplace and regulatory requirements
- completed tallow refining process including:
 - safe shut down of equipment
 - 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 principles of tallow refinement including liquid tallow and solid tallow
- key features of Hazard Analysis and Critical Control Point (HACCP) principles related to tallow refinement
- workplace procedures for safe movement of workers and visitors in and around plant and tallow refining machinery and equipment
- features, benefits, limitations, and correct fit of PPE for refining tallow
- quality requirements of rendered materials that are used to produce refined tallow, including:
 - temperature
 - particle size
- product requirements, including:
 - free fatty acid levels
 - colour
- AS5008 Hygienic Rendering of Animal Products
- Australian Renderers Association's Code of Practice for Hygienic Rendering of Animal Products, including cleaning and sanitation of tallow refining equipment
- codes and standards that apply including EPA requirements for monitoring environmental emissions, including odour control, waste water, heat recovery and noise as applicable
- features and functions of tallow processing and refining 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, including compressed air, electricity and water
 - shut down
- workplace recording and reporting requirements for tallow refinement.

Assessment Conditions

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

- physical conditions:
 - in a meat rendering plant or an environment that accurately represents workplace conditions
- resources, equipment, and materials:
 - industrial tallow refining machinery 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
- specifications:
 - workplace procedures for refining tallow and operation of machinery and equipment stipulated in the performance evidence
 - workplace procedures for worker safety and contamination control
 - reporting and recording formats
- 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>