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 | 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.  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.  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. |
| Prerequisite Unit | Nil |
| Unit Sector | Rendering (REN) |

| Elements | Performance Criteria |
| --- | --- |
| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare to feed cooker | 1.1 Confirm product specifications and set cooker parameters  1.2 Identify safety hazards, assess risks and control or report risks according to working according to HACCP techniques and workplace procedures  1.3 Select and fit PPE and contamination control equipment  1.4 Undertake preoperational checks of plant and equipment according to workplace procedures and/or manufacturer requirements  1.5 Clean and sanitise tools and equipment according to contamination control  1.6 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 workplace procedures  2.4 Monitor and adjust outflow according to workplace requirements |
| 3. Monitor environmental controls | 3.1 Take samples and test batch to ensure it is cooked to specifications  3.2 Monitor vapours to ensure they are condensed according to regulatory requirements  3.3 Monitor non-condensed emissions to scrubber, bio-filter and/or after burner according to regulatory requirements |
| 4 Shut down continuous rendering process | 4.1 Clean cooking equipment and report maintenance requirements  4.2 Shut the process down safely according to operating procedures  4.3 Identify and report maintenance requirements according to workplace procedures  4.4 Maintain workplace records in appropriate format |

| 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 batch cooking equipment |
| Writing | Complete records using industry terminology |
| Oral Communication | Use open and closed questions to clarify information |
| Numeracy | 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 | Title and application changed  Unit sector added  New element added  Performance criteria added, revised, reordered or merged for clarity  Foundation Skills added  Performance Evidence, Knowledge Evidence and Assessment Conditions updated | 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: |

| TITLE | Assessment requirements for AMPREN3XX Operate and monitor a continuous dry rendering process |
| --- | --- |
| 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 operated and monitored two separate continuous dry rendering processes and has:   * identified hazards and controlled risk using HACCP technique * selected and correctly fitted appropriate personal protective equipment (PPE) required for dry render cooking processes * checked raw materials, including correct labels, temperature, condensate, particle size and colour * operated cooker and monitored temperature and made adjustments according to work instructions and product specifications * tested product samples to ensure materials are cooked to specifications * loaded and unloaded cooker according to workplace procedures * monitored cooker including: * 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 |
| --- |
| 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 a continuous dry rendering process * key features of HACCP techniques 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 * quality requirements of operations * implications on product quality and productivity of incorrect load in cooker * effects of incorrect startup, including: * over shot end point temperature * foaming * AS5008 Hygienic rendering of animal products, including cleaning and sanitation of dry rendering equipment * Australian Renderers Association's Code of practice for hygienic rendering of animal products * environment regulatory requirements for control of non-condensable gases from a continuous dry rendering process * 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: * 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 * 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 | Companion Volumes, including Implementation Guides, are available at VETNet: |