Modification history

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| Release | Comments |
| Release 1 | This version released with FBP Food, Beverage and Pharmaceutical Training Package version 6.0 |

| FBPGRA3X11 | Monitor a break roll |
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| Application | This unit of competency describes the skills and knowledge required to set up, operate, monitor and shut down a break roll to break release grain, as part of the milling of grain for flour or feed.  This unit applies to individuals who work in a grain processing production environment under the direction of the miller or head miller. It typically targets the production worker responsible for applying basic operating principles to the operation and monitoring of break roll equipment.  All work must be carried out to comply with workplace procedures according to state/territory health and safety and food safety 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 | Grain processing (GRA) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare the break roll equipment for operation | 1.1 Confirm materials are available according to operating requirements  1.2 Identify and confirm cleaning and maintenance requirements have been met according to food safety requirements  1.3 Select, fit and use personal protective equipment and clothing  1.4 Fit and adjust machine components and related attachments according to operating requirements  1.5 Check processing or operating parameters to meet safety and production requirements  1.6 Carry out pre-start checks according to operator instructions |
| 2. Operate and monitor equipment | 2.1 Start and operate the process according to safe work procedures  2.2 Monitor equipment and services to ensure optimal operations  2.3 Identify any variation in equipment operation and troubleshoot to identify solution  2.4 Take and check samples to confirm that specifications are met and correct break release is achieved for each passage  2.5 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures  2.6 Maintain the work area according to safe work and food safety procedures  2.7 Maintain workplace records including traceability and biosecurity records, according to workplace procedures |
| 3. Complete the break roll process | 3.1 Shut down the process safely according to operating procedures  3.2 Identify and report maintenance requirements according to workplace procedures  3.3 Ensure waste is disposed of in line with environmental requirements |

| 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. | |
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| Skill | Description |
| Reading | * Interpret directions for the safe operation of equipment |
| Writing | * Record product and processing information using digital and/or paper-based formats |
| Numeracy | * Measure product using weight (kg, T) and volume (L, hL), to two decimal points * Use percentages (%) as they apply to mixes of grain * Monitor supply and flow of materials to and from the break roll process * Accurately interpret readings on scales and gauges |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FBPGRA3X11 Monitor a break roll | FDFGRA2008 Operate a break roll process | Unit title and code updated to better match work task  Minor changes to Performance Criteria to clarify intent  Foundation skills refined  Performance Evidence clarified  Minor changes to Knowledge Evidence and Assessment Conditions | Equivalent unit |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet:  https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4 |

| TITLE | Assessment requirements for FBPGRA3X11 Monitor a break roll |
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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 monitored a break roll on at least one occasion, including:   * applying safe work practices * applying food safety procedures to work practices * ensuring break releases have been carried out to meet required yield and flour quality * taking corrective action in response to typical faults and inconsistencies. | |

| Knowledge Evidence |
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| 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 basic principles of breaking grain, including how and why the endosperm separation takes place * basic operating principles of equipment, including: * main equipment components including any level control system, feed roll, feed gate, main rolls, roll adjustment, scrapers * status and purpose of guards * the purpose and location of sensors and related feedback instrumentation * high drive motor amperage * services required and action to take if services are not available * good manufacturing practices (GMP) relevant to work task * the flow of the break roll system and the effect of outputs on downstream processes * typical equipment faults and related causes, including: * signs and symptoms of faulty equipment * early warning signs of potential problems * symptoms of chokes, blockages and action required to clear * methods used to monitor the break rolls, including: * visually inspecting the inlet product for variation in granulation across the roller length, checking for presence of any unexpected stock or flour * visually inspecting the outlet product for semolina production and bran clean-up without excessive damage to bran * visually inspecting pre-checking rolls are parallel * temperature check of roll stocks on back of hands – left and right temperature should be consistent * consistency of stock from left to right * break release procedure, correct sampling technique, weighing, sifting and calculating * how to address changes in grist on the mill * contamination/cross contamination and food safety risks associated with the break rolls and related control measures * common causes of poor or inadequate grind including: * worn flutes * inappropriate conditioning * health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process * requirements of different shutdowns as appropriate to the break roll and workplace production requirements, including: * production stop * routine mill shutdown * unexpected production stop * emergency shutdowns * procedures to follow in the event of a power outage * isolation, lock out and tag out procedures and responsibilities * procedures and responsibility for reporting production and performance information * basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment * environmental issues and controls, including waste and rework collection * routine maintenance procedures for operating a break roll * cleaning and sanitation procedures for workspace and equipment * procedures to track traceability of product * procedures to ensure biosecurity requirements are met. |

| Assessment Conditions |
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| Assessment of skills in this unit of competency must take place under the following conditions:   * physical conditions: * a grain processing workplace or an environment that accurately represents workplace conditions * resources, equipment and materials: * conditioned grain suitable for the break roll system * personal protective equipment * milling and related equipment and services * specifications: * production schedule * work procedures, including advice on safe work practices, food safety, quality and environmental requirements.   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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