

Control processing to produce Liquid Fresh Milk

Overview

This standard covers the skills and knowledge needed for you to process liquid milk in food and drink manufacture and or supply operations. Knowing how to process liquid milk is important to the production of a final product that adheres to regulatory food safety and organisational quality and yield specifications. Controlling liquid milk processing equipment is integral, including that which carries out heat treatment, filtration, standardisation, separation, homogenisation and/or other dairy processes. It is important to the production of a number of dairy products including liquid milk, cream for butter manufacture, ice cream, mixed fat spreads, cream, milk, cheese, yoghurt and fermented dairy products.

You will need to know how to prepare equipment needed to process liquid milk and control liquid milk processing. You must also know how to address problems, work within the limits of your responsibility and adhere to regulatory standards and standard operating procedures. You must be able to apply your skills and knowledge within food safety regulations and any relevant international industry codes especially when referring to HACCP, TACCP and VACCP.

This standard is for you if you work in food and drink manufacture and/or supply operations and are involved in controlling dairy processing equipment to produce liquid fresh milk.

Control processing to produce Liquid Fresh Milk

Performance criteria

You must be able to:

1. prepare to control liquid milk processing equipment and associated compliance documentation
2. use the correct personal protective equipment
3. check organisational standard operating procedures and product recipes relating to the production of liquid milk
4. check that all necessary plant, equipment, plans for production, ingredients and services are available and fit for use
5. check documentation to ensure plant is ready for use
6. start up and control dairy processing equipment within the limits of your responsibility
7. work at a pace suitable to meet the production plan
8. make adjustments to equipment to maintain organisational product specifications
9. take representative samples for testing adhering to organisational sampling plan within the limits of your responsibility
10. evaluate faults for impact on product and processing equipment operations within the limits of your responsibility
11. make dairy product available to next stage of processing or packaging
12. prepare for changeover of product recipe or packaging in line with organisational requirements
13. prepare to handover process on shift changeover in line with organisational requirements
14. deal with product waste in line with legislation and organisational requirements

Control processing to produce Liquid Fresh Milk

15. liaise with relevant personnel to prepare plant for shutdown
16. process and route interphase product
17. establish and maintain effective spoken, written and electronic communication with relevant people
18. complete the necessary documentation and process to organisational requirements

Control processing to produce Liquid Fresh Milk

Knowledge and understanding

You need to know and understand:

1. the food safety aspects of the production of liquid fresh milk products including HACCP, TACCP and VACCP
2. the dairy sciences underpinning liquid milk
3. regulatory and organisational requirements relating to the production of liquid milk
4. the tools and equipment needed to process liquid milk
5. health and safety aspects associated with the process
6. the personal protective equipment required when processing milk and why it is important to use and wear it
7. how to maintain communication with relevant people when processing liquid milk
8. organisational specifications and equipment standard operating procedures relating to the processing of liquid milk
9. the importance of adhering to quality specifications when processing liquid milk
10. how to control temperature when storing and processing milk
11. why it is important to control temperature from milk reception to product outlet (Finished milk silo/tank)
12. why and how to control processing equipment used to process liquid milk
13. how to adjust liquid milk processing in response to product quality tests
14. the actions required to standardise milk to organisational requirements
15. common sources of contamination during processing, how to avoid these and what might happen if this is not done
16. how to deal with product that can be re-cycled or re-worked
17. the hygienic design of liquid fresh milk processing plant
18. additives used in fresh milk drinks (thickeners, stabilisers, emulsifiers, flavours, powders)
19. how the manufacture process and support operations use digital technologies rather than paper based systems to monitor and control production

Control processing to produce Liquid Fresh Milk

Developed by	Improve
Version Number	3
Date Approved	30 Mar 2023
Indicative Review Date	30 Mar 2028
Validity	Current
Status	Original
Originating Organisation	Improve
Original URN	IMPDY101
Relevant Occupations	Food Preparation Trades, Manufacturing Technologies, Process Operatives, Process, Plant and Machine Operatives
Suite	Dairy
Keywords	liquid; milk; process; dairy; plant; equipment; clean