



**Australian Government**

# **AMPA400 Utilise refrigeration index**

**Release: 1**

## AMPA400 Utilise refrigeration index

### Modification History

Release	TP Version	Comment
1	AMPv1.0	Initial release

### Application

This unit describes the skills and knowledge required to use the Refrigeration Index (RI) to validate compliance of a chilling and freezing process.

The Export Control Orders (ECO), which came into effect in July 2005, require the validation of all chilling processes using the RI.

This unit is applicable to Quality Assurance (QA) staff and regulators who utilise the RI to validate compliance of a chilling or freezing process.

The unit must be delivered and assessed in the context of Australian meat industry standards and regulations.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

### Pre-requisite Unit

Nil.

### Unit Sector

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Define the RI	1.1 Explain RI measure and the uses of predictive microbiological model 1.2 Identify regulatory requirements for process compliance using the RI 1.3 Identify factors affecting microbial growth 1.4 Identify RI model parameters

<b>Element</b>	<b>Performance criteria</b>
2. Collect temperature data for RI	2.1 Set up data logger correctly 2.2 Place temperature sensor in product, taking into account the point of microbiological concern and recommended placement 2.3 Process time-temperature data into correct format for RI calculator
3. Select and define process to be validated	3.1 Define process in terms of output 3.2 Define production lot 3.3 Identify variables in the process 3.4 Identify number of measurements required 3.5 Identify when and where data collection should occur 3.6 Identify RI criteria
4. Calculate RI index	4.1 Load and open software 4.2 Select correct calculator options for process being validated 4.3 Calculate RI for process to be validated
5. Utilise RI to validate process	5.1 Compare RI with ECO requirements 5.2 Assess appropriateness of the data where RI does not comply 5.3 Take action to correct a non-conforming process 5.4 Make decisions on production disposition for a refrigeration breakdown
6. Document a validation process using the RI	6.1 Describe purpose, process and arrangements for validation 6.2 Describe data collection methods and calculation options used and summarise data collected 6.3 State validation decision

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

MTMP401B Utilise refrigeration index	E
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## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5e2e56b7-698f-4822-84bb-25adbb8443a7>