

The Average Quantity System (AQS)

Weights & Measures Office (WMO)

3 and 5 June 2009

Outline

- Video on Weights & Measures Programme
- Introduction to the Average Quantity System (AQS)
- Requirements of OIML Recommendation, R87 on Quantity of Product in Prepackages
- APEC/APLMF Training Course on Prepackaged Goods

Introduction to the Average Quantity System (AQS)

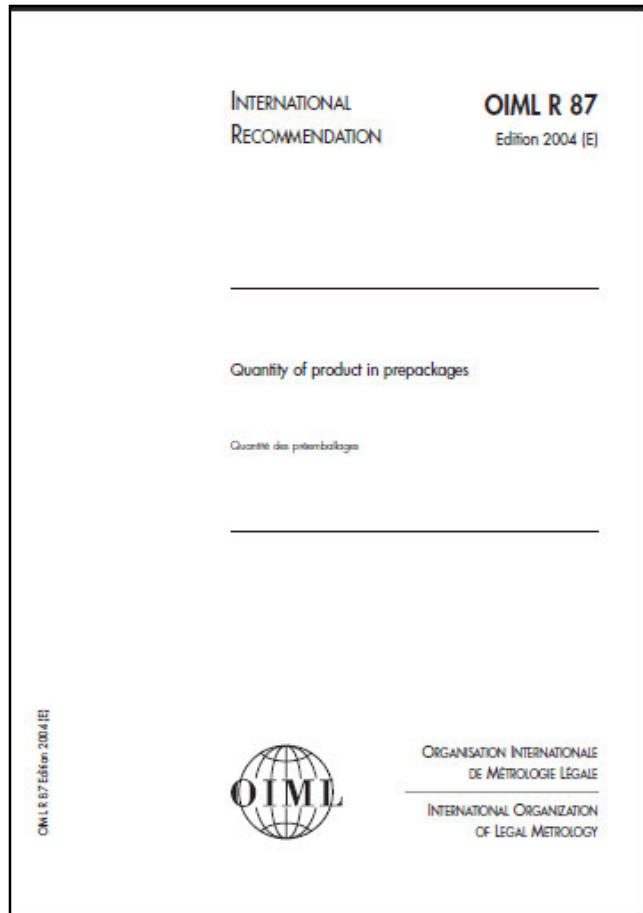
The Weights and Measures Act and the Regulations were amended in 2005 to replace the Minimum Quantity System with the Average Quantity System (AQS).

The AQS is an internationally recognised system for determining deficiencies in pre-packaged goods. It is used in Australia, Canada, European Union, India, Japan, New Zealand, South Africa and Switzerland.

Benefits of the AQS

- Provides fairness to packers, manufacturers and consumers
- Packers/manufacturers can increase their productivity by reducing the overfill needed to assure correct quantity
- Consumers can be assured that pre-packaged goods they purchase are correct and are on average, equal to the nominal quantity

OIML International Recommendation R87



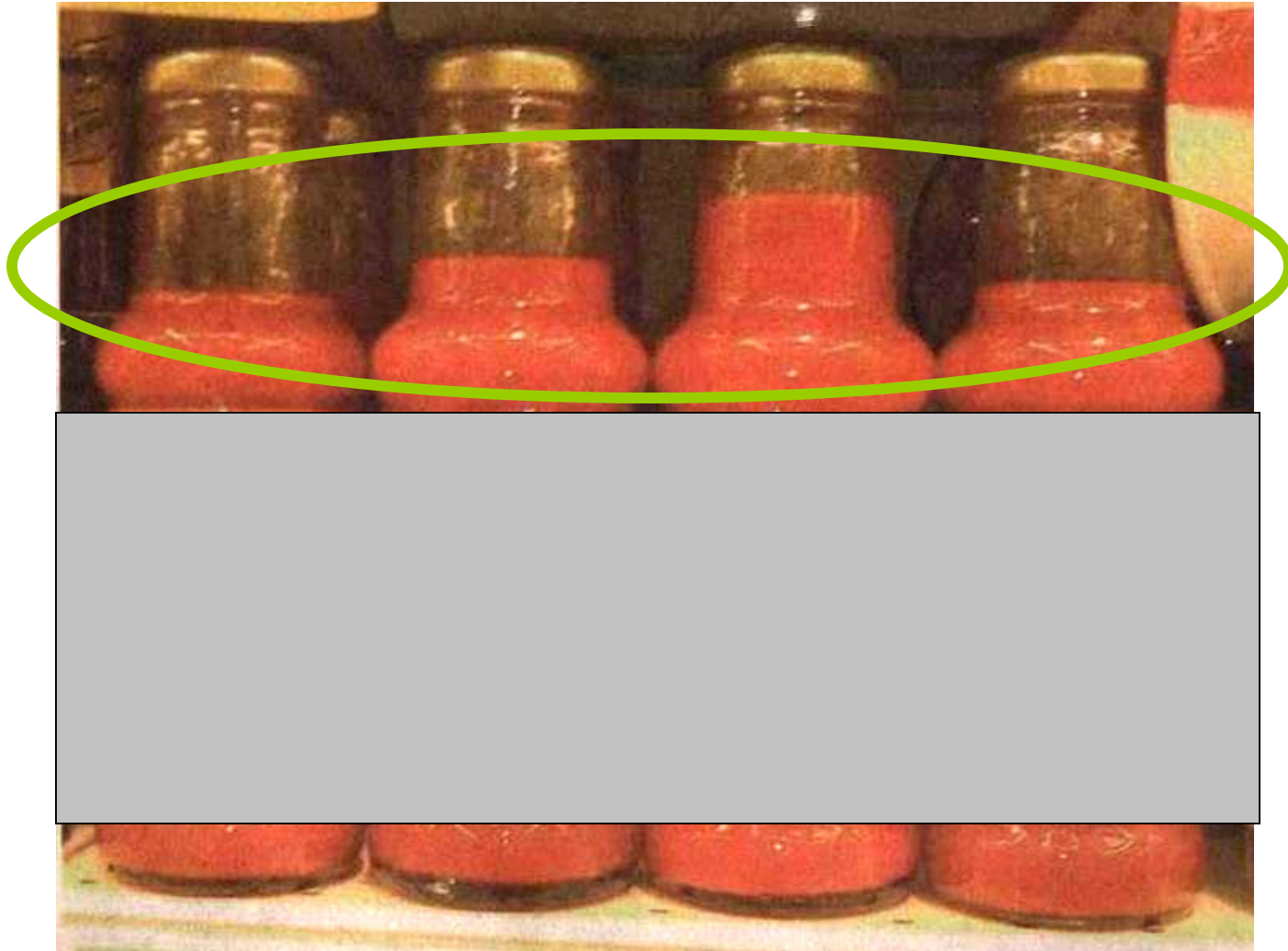
R87 sets out the metrological requirements for prepackages. It includes:

- **a system for determining the net quantity based on the Average Quantity System or AQS**
- **legal metrology requirements for prepackaged products labelled in predetermined constant nominal quantities of weight, volume, linear measure, area or count**
- **sampling plans and procedures for use by legal metrology officials**

Examples of Prepackaged Products



AQS?



Definition of Prepackaged Product in OIML R87

A product is pre-packed when it is placed in a package of whatever nature without the purchaser being present and the quantity of the product contained cannot be changed without the pre-package being opened or doing a perceptible modification.

Pre-packaged good also refers to any commodity that is enclosed in a container or wrapped in any manner, and for which its quantity has been determined and indicated on its label prior to being offered for sale.

Average Quantity System (AQS)

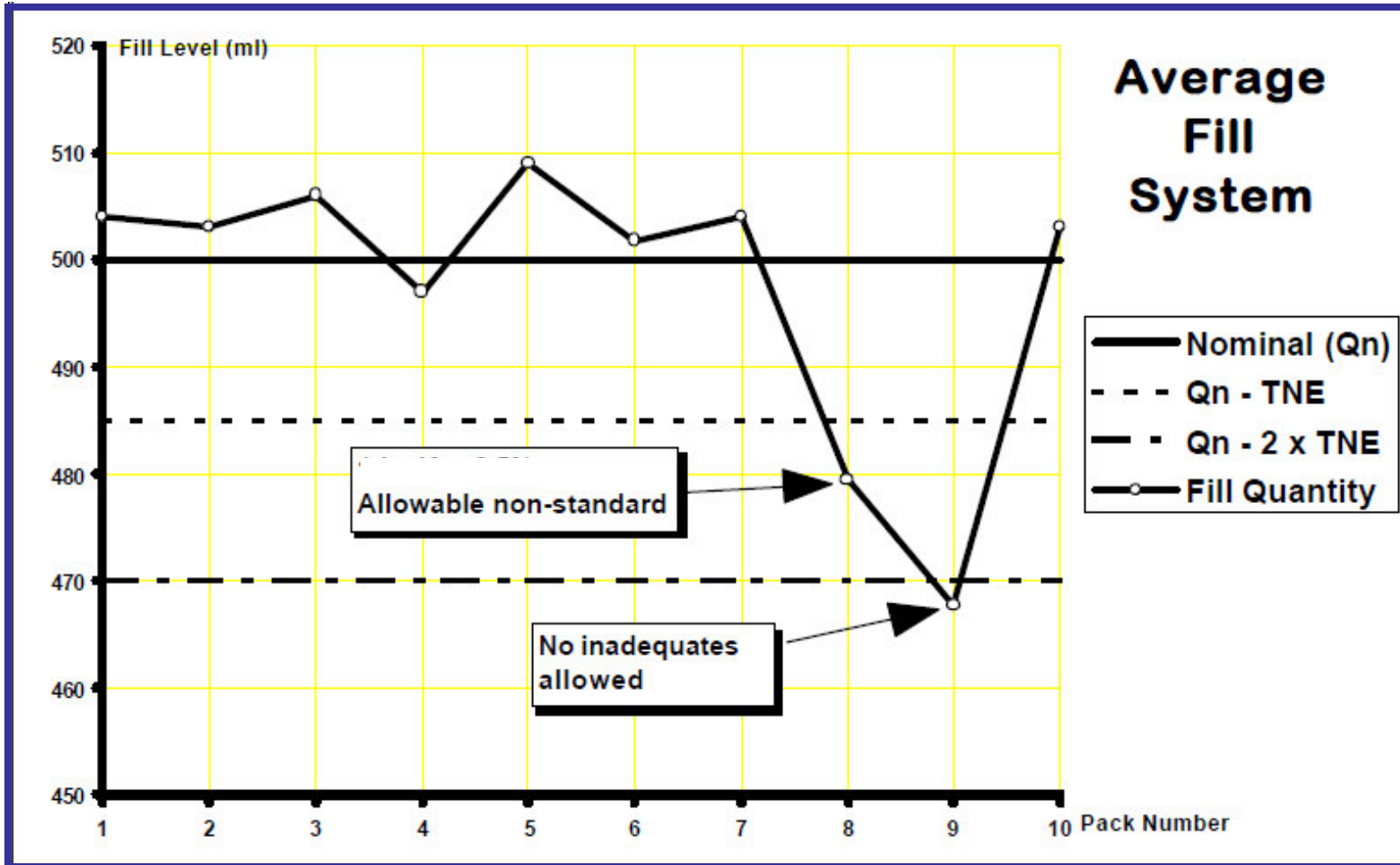
There are three general rules to follow when using the AQS:

Rule #1 : The declared quantity on a package should accurately reflect the quantity being supplied. Therefore, the average net content of the package in a lot (production run) may not be less than the declared quantity.

Rule #2 : The number of non-conforming prepackages must not exceed a prescribed number.

Rule #3 : No package content shall be insufficient by more than twice the prescribed tolerable limit.

Graphical Illustration of the 3 Rules



Average Quantity System

An inspection lot is:

√ Accepted if it satisfies the requirements fixed for the three parameters; or

X Rejected if it does not satisfy one or more of the requirements

Tolerable Deficiency

Nominal Quantity (Qn) in g or ml		Tolerable Deficiency (T)	
From	To	as % of Qn	g or ml
5	50	9.0	-
50	100	-	4.5
100	200	4.5	-
200	300	-	9.0
300	500	3.0	-
500	1,000	-	15.0
1,000	10,000	1.5	-
10,000	15,000	-	150.0
15,000	50,000	1	-

The AQS Illustrated

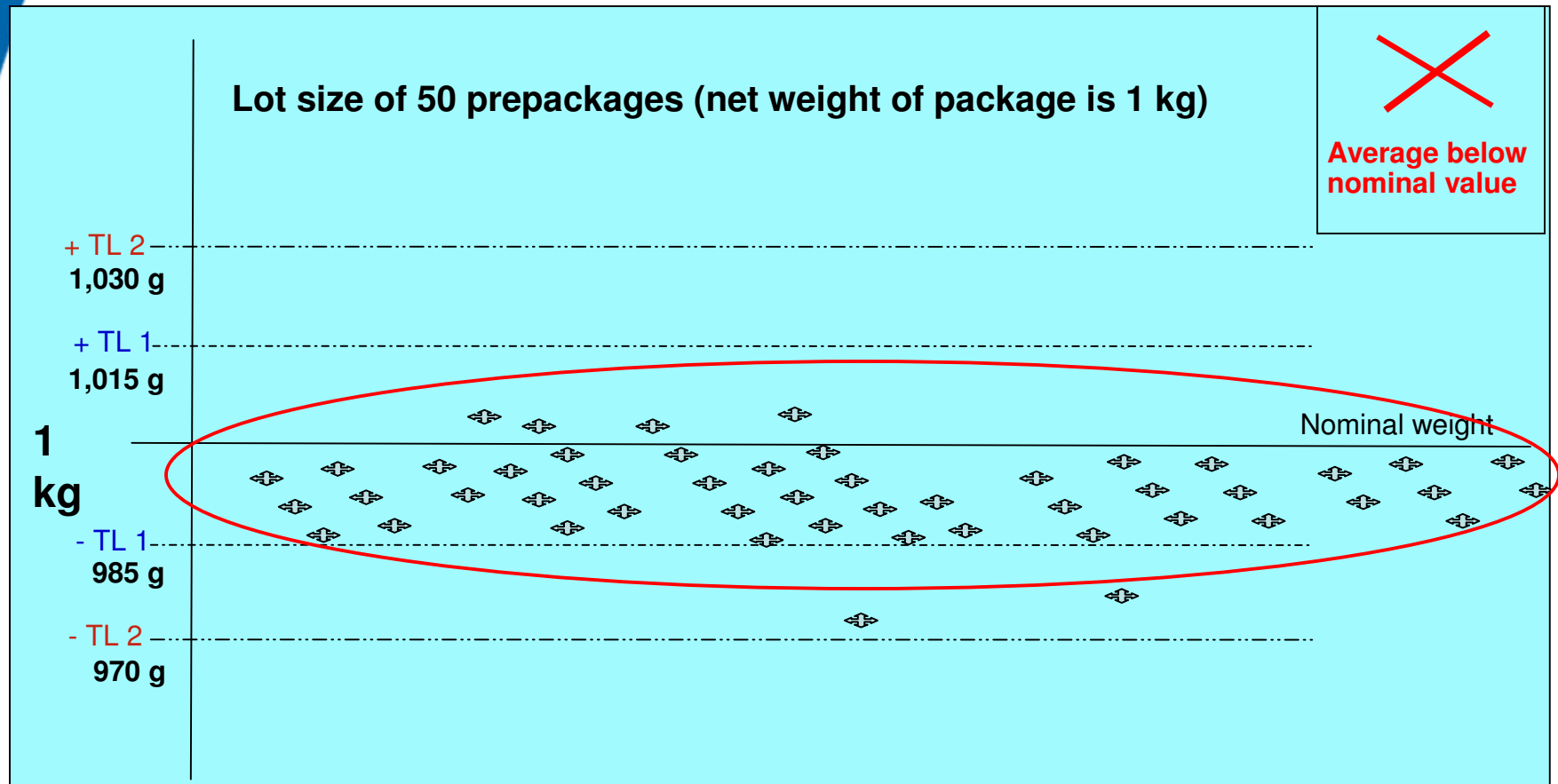
Sampling plan for prepackages with nominal quantity expressed in units of mass, volume, length, area and count

Inspection Lot Size	Sample Size	Rejection Number
100 to 500	50	4 and above
501 to 3,200	80	6 and above
More than 3,200	125	8 and above

Note : 100% inspection for lot of less than 100
(No non-conforming prepackages allowed)

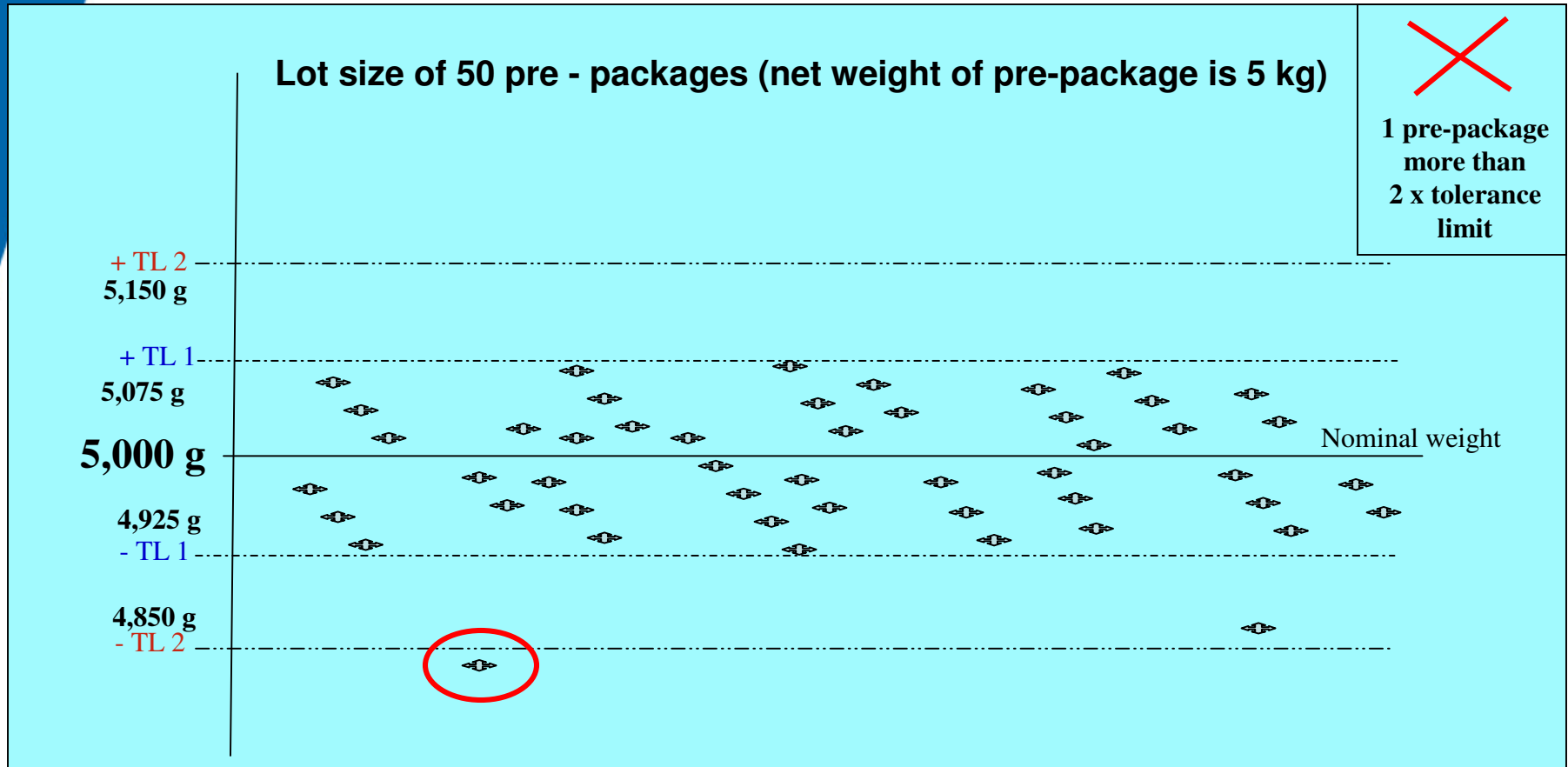
Rule #1


The declared quantity on a package should accurately reflect the quantity being supplied. Therefore, the average net content of the package in a lot (production run) may not be less than the declared quantity.



Legend	
⊕	Prepackaged goods
TL 1	Tolerance limit 1 + / - 15 g
TL 2	Tolerance limit 2 + / - 30 g

Rule #3 : No package content shall be insufficient by more than twice the prescribed tolerable limit.



Legend				
	Pre-packaged goods	TL 1	Tolerance limit 1	+ / - 1.5 %
		TL 2	Tolerance limit 2	+ / - 3 %

Exclusions from the AQS

Catchweight Goods

Catchweight goods are goods that do not come in standard weights or measures. They are usually sold in varying quantities. Such goods are meat parts sold as pre-packages in supermarket chillers.

The AQS **cannot** be applied to catchweight goods as such goods are individually weighed and marked on the pre-package.

OIML R87 can be downloaded from
the OIML website

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<http://www.oiml.org/publications/R/R087-e04.pdf>

APEC/APLMF Training Course on Prepackaged Goods

Seminar Information

Date : 6 - 10 July 2009 (Monday - Friday)
Time : 9.00am to 5.00pm
Venue: Holiday Inn Atrium, Singapore (Former Glass Hotel)
317 Outram Road
Singapore 169075

Fee per pax (inclusive of GST): S\$800.00

Closing Date: 5 June 2009

How to Register

Fax the completed form below to: 6458 1441 OR post it to:

Weights and Measures Office
SPRING Singapore
2 Bukit Merah Central
Singapore 159835

Payment Information

All cheques should be crossed and made payable to "SPRING Singapore". No invoice will be issued. A tax receipt will be issued upon clearance of cheque if payment is by cheque.

Registration is based on first come, first served basis. SPRING Singapore reserves the right to cancel, postpone or make changes to the course due to unforeseen circumstances. No refund will be made for any cancellation but replacement is welcome. Please inform us in writing.

Registration Form

Dr / Mr / Ms*: _____

Designation: _____

Organisation (in full): _____

Address: _____

Tel: _____ Fax: _____ Email: _____

Bank: _____ Cheque No.: _____

(* delete where inappropriate)

For Official Use : Acknowledgement of cheque amount S\$

SPRING Singapore
2 Bukit Merah Central Singapore 159835
Tel: +65 6278 6666 Fax: +65 6278 6667
Website: www.spring.gov.sg



APEC / APLMF Training Course

Practical Application of OIML Recommendation
R87 on Pre-packaged Goods

Date: 6 - 10 July 2009 (Monday – Friday)

Time : 9.00am to 5.00pm

Venue: Holiday Inn Atrium, Singapore

(Former Glass Hotel)

Changi Ballroom (Level 4)

317 Outram Road

Singapore 169075

Co-organised with:



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Thank You

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