

**MUTUAL RECOGNITION ARRANGEMENT ON
CONFORMITY ASSESSMENT OF ELECTRICAL AND
ELECTRONIC EQUIPMENT**

**APEC EEMRA
Information Interchange Format**

PART I

Introduction

This format is being prepared to assist member economies participating in the APEC MRA to prepare documentation required for participation in a consistent format.

It is expected that each participating member economy would submit their information in the recommended format to the APEC Secretariat as required by the MRA.

The format is based on the Information Notes on Good Practice for Technical Regulation and therefore provides for information to be supplied for each of the regulatory regimes identified in the notes. There are 7 regimes, they are for products requiring inspection, products requiring licensing, products requiring batch testing, products requiring approval (or certification), products requiring listing or registration, supplier declarations and essential safety requirements. Participating member economies need only provide information relating to the regimes which are in force in their economy. The regimes that are not enforced by the economy need to be noted also, please indicate this by placing 'none' in the standards table on the front of each regime.

Where more than one regulatory system applies within a participating member economy information on each regulatory system should be provided separately.

The format also draws upon the survey on Conformity Assessment of Electrical and Electronic Equipment conducted by the APEC SCSC. The format includes reference to applicable international standards and uses the international convention for describing the relationship of national and international standards, i.e. IDT for identical, MOD for modified, and NEQ for not equal.

When information makes reference to documents or legislation, the documents or legislation should be available on a website for that economy or provided as part of the information supplied to the APEC Secretariat.

ECONOMY - Thailand

APEC EEMRA Information Interchange Format

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PART 1 INFORMATION EXCHANGE

Regime Overview

The regime is to provide the following objectives:

1. Consumers protection
2. Environmental protection and natural resources preservation
3. Industrial development to be competitive in the world market
4. To ensure fair trade and eliminate trade barriers caused by standardization measures

In Thailand, some electrical and electronic products are required to comply with the Royal Decree to conform to the standard.

Many of these Standards are harmonised with the relevant IEC Standards, particularly household appliances which is aligned with IEC 60335.

A voluntary compliance mark is also available as provided for the electrical and electronic equipments which are manufactured in the country.

A mandatory compliance mark is required for the equipments both manufacturing in the country and importing from abroad. These equipments are required to be approved prior to sale (pre-market certification).

The regulatory regime implements ASEAN EE MRAs with ASEAN members, allowing for the recognition of test reports from Listed laboratories in ASEAN.

voluntary certification mark

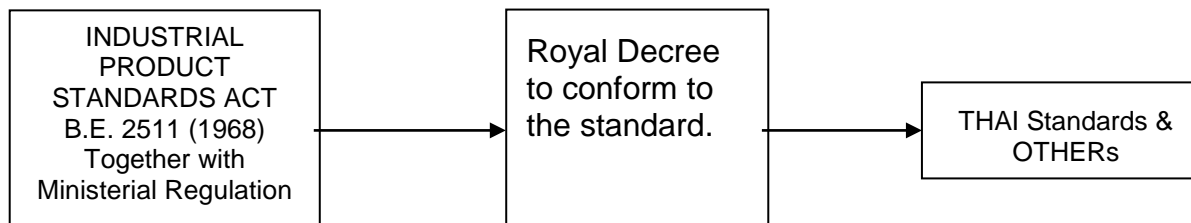


mandatory certification mark



Legislative References

Scope of Legislation	Legislation Applicable	Government Agency
Electrical Safety	INDUSTRIAL PRODUCT STANDARDS ACT B.E. 2511 (1968) Together with Ministerial Regulation	Ministry of Industry
Electromagnetic Compatibility EMC	INDUSTRIAL PRODUCT STANDARDS ACT B.E. 2511 (1968) Together with Ministerial Regulation	Ministry of Industry
Energy efficiency requirements	INDUSTRIAL PRODUCT STANDARDS ACT B.E. 2511 (1968) Together with Ministerial Regulation	Ministry of Industry



1. PRODUCTS REQUIRING INSPECTION

Yes

2. PRODUCTS REQUIRING LICENSING

Yes

3. PRODUCTS REQUIRING BATCH TESTING

Yes

4. PRODUCTS REQUIRING APPROVAL (OR CERTIFICATION)

Yes

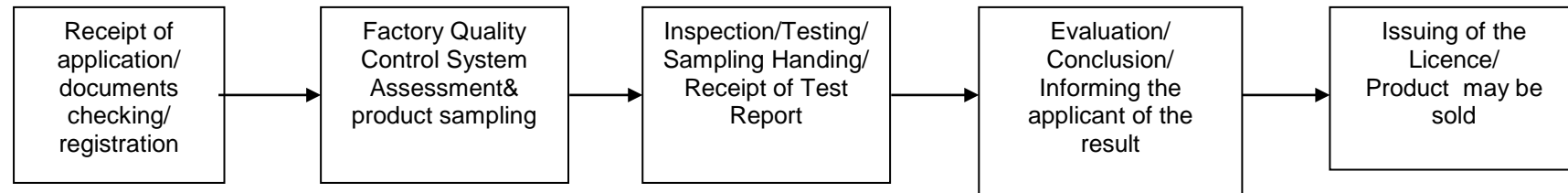
5. Description of the Regime

In Thailand, electrical and electronic equipment falling within a royal decree may only be sold if it is licensed issued by the Thai Industrial Standards Institute.

The approval must be based on a test report showing compliance with the recognised Thailand standard, issued by a recognised testing facility in addition factory inspection must be done by designated inspection body or TISI officer.

The approval may be held by either a party located in Thailand, or within the supply chain for products manufactured overseas.

Legislative Regime Overview



Products covered by Royal Decree

Product type or grouping	Regulation	STANDARDS				
		Domestic Standards	Please tick box if mandatory	Relevant International Standards	Extent of Alignment	State reason if MOD
PVC insulated Copper cables		TIS 11-2531 (1988)	√	IEC 60227-1 (1993), Am.1(1995), Am.2(1998) IEC 60227-2 (1997)	MOD	-
PVC insulated aluminium cables		TIS 293-2541 (1998)	√	-	NEQ	-
Electrical Switches		TIS 824-2551 (2008)	√	IEC 60669-1 (2007)	MOD	-
Low-voltage distribution link fuses		TIS 10-2529 (1986)	√	IEC 60269-1(1998), IEC 60269-3(1987)	NEQ	-
Residual current operated circuit-breakers with integral overcurrent protection for household and similar used(RCBO)		TIS 909-2548(2005)	√	IEC 601009-1 (2003)	NEQ	
Fluorescent lamps : safety requirements		TIS 956-2533 (1990)	√	IEC 60081 (1997)	NEQ	-
Ballast for fluorescent lamps		TIS 23-2521 (1978)	√	IEC 60920 (1990), Am.1(1993), Am.2(1995) IEC 60921(1988), Am.1(1990), Am.2(1994)	NEQ	-
Starters for fluorescent lamps		TIS 183-2547 (1985)	√	IEC 60155(1993), Am.1(1995)	IDT	-
Incandescent lamps		TIS 4 Part 1-2529 (1986)	√	IEC 60064 (1993) IEC 60432-1(1999)	NEQ	-

Product type or grouping	Regulation	STANDARDS				
		Domestic Standards	Please tick box if mandatory	Relevant International Standards	Extent of Alignment	State reason if MOD
Lampholders for tubular fluorescent lamps and starter holders		TIS 344-2549 (2006)	√	IEC 60061 (2005) IEC 60061-2(2001)	NEQ	-
Electric irons		TIS 366-2547 (2004), TIS 1375-2547 (2004)	√	IEC60335-2-3 (2002-03) IEC 60335-1, Am.1 (2004)	MOD MOD	See TIS 1375-2547 TIS 1375-2547 <u>Subclause 24.4</u> <i>In the first paragraph, add words "TIS 166, TIS 1234" before word "IEC 60083 or IEC 60906-1".</i> <u>Subclause 25.25</u> <i>In the last sentence of the first paragraph, replace words "IEC 60083" with "TIS 166 and TIS 1234"</i>
Electric stoves; open type heating elements: safety requirements		TIS 870-2532 (1989)	√	IEC60335-2-9, Am.1 (2005-06)	NEQ	-
AC electric fans : safety requirements		TIS 934-2533 (1990)	√	IEC 60335-2- 80 (1997)	NEQ	-

Product type or grouping	Regulation	STANDARDS				
		Domestic Standards	Please tick box if mandatory	Relevant International Standards	Extent of Alignment	State reason if MOD
Electric rice-cookers : safety requirements		TIS 1039-2547 (2004) TIS 1375-2547 (2004)	√ -	IEC 60335-2-15 (2002-07) IEC 60335-1, Am.1 (2004)	MOD MOD	See TIS 1375-2547 TIS 1375-2547 <u>Subclause 24.4</u> <i>In the first paragraph, add words "TIS 166, TIS 1234" before word "IEC 60083 or IEC 60906-1".</i> Subclause 25.25 <i>In the last sentence of the first paragraph, replace words "IEC 60083" with "TIS 166 and TIS 1234"</i>

Product type or grouping	Regulation	STANDARDS				
		Domestic Standards	Please tick box if mandatory	Relevant International Standards	Extent of Alignment	State reason if MOD
Tumbler dryers : safety requirements		TIS 1389-2539 (1996)	√	IEC 60335-2-11(1993)	MOD	<p>TIS 1389-2539</p> <p><u>Sub-clause 1.1</u> Scope excluding rated voltage 480 V.</p> <p><u>Sub-clause 4.3.1.4</u> temp. rise of the accessible front surface made of glass, ceramic and plastic parts.</p> <p><u>Sub-clause 4.14.6</u> minimum cross-sectional area of conductors of supply cords</p> <p><u>Sub-clause 4.15.3</u> nominal cross-sectional area of conductors.</p> <p><u>Sub-clause 4.18.2</u> requirements on creepage distance, clearance and distance through insulation.</p>

Product type or grouping	Regulation	STANDARDS				
		Domestic Standards	Please tick box if mandatory	Relevant International Standards	Extent of Alignment	State reason if MOD
Washing machines for household use : safety requirements		TIS 1462-2548 (2005) TIS 1463-2540 (1997)	√	IEC 60335-2-7 (1993) IEC 60456 (2003)	MOD	TIS 1463-2540 <u>Sub-clause 2.10</u> water temperature 45±5C. <u>Sub-clause 4.18</u> requirements on creepage distance, clearance and distance through insulation. <u>Sub-clause 7.1</u> ambient temperature 27±2C. <u>Annex B.5</u> ambient temperature 27±2C, humidity 65±5%.

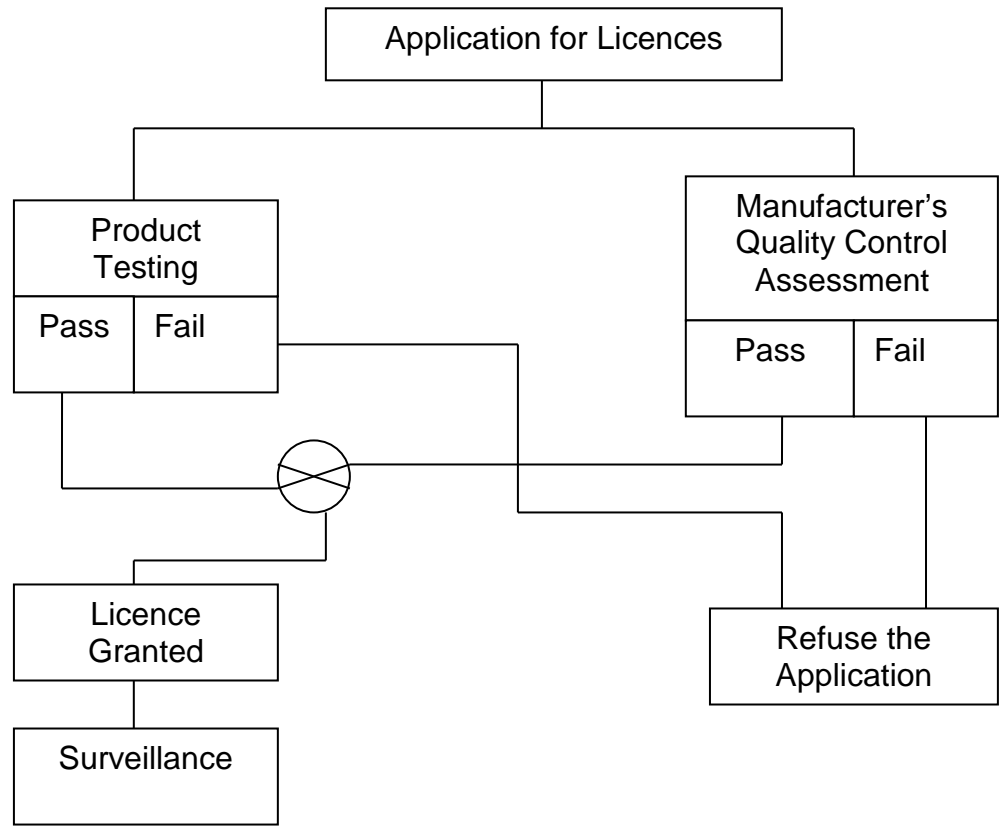
Product type or grouping	Regulation	STANDARDS				
		Domestic Standards	Please tick box if mandatory	Relevant International Standards	Extent of Alignment	State reason if MOD
Electric fryers: safety requirements		TIS 1509-2547 (2004) TIS 1375-2547 (2004)	√ -	IEC 60335-2-13 (2002-10) IEC 60335-2-15 (2002-07) IEC 60335-1, Am.1 (2004)	MOD MOD	TIS 1509-2547 Clause 1 <i>Scope of the Standard cover fryers, frying pans and similar appliances as defined in Subclause 3.101, 3.102 and 3.103</i> Remark 102 <i>Scope of the Standard does not cover high frequency-heating electric fryers.</i> <u>Subclause 3.101</u> <i>Definition of electric fryers.</i> <u>Subclause 3.102</u> <i>Definition of electric deep-fryers.</i> <u>Subclause 3.103</u> <i>Definition of electric frying pans.</i> Clause 6 <u>Classified electric fryers into 3 classes; 0I, I and II.</u>

Product type or grouping	Regulation	STANDARDS				
		Domestic Standards	Please tick box if mandatory	Relevant International Standards	Extent of Alignment	State reason if MOD
Instantaneous water heaters :safety requirements		TIS 1693-2547 (2004) TIS 1375-2547 (2004)	√ -	IEC 60335-2-35 (2002-10) IEC 60335-1, Am.1 (2004)	MOD MOD	See TIS 1375-2547 TIS 1375-2547 <u>Subclause 24.4</u> <i>In the first paragraph, add words "TIS 166, TIS 1234" before word "IEC 60083 or IEC 60906-1".</i> <u>Subclause 25.25</u> <i>In the last sentence of the first paragraph, replace words "IEC 60083" with "TIS 166 and TIS 1234"</i>
Electric thermo pots : safety requirements		TIS 2062-2543 (2000)	√	IEC 60335-2-15 (1995)	MOD	TIS 2062-2543 <i>Contents of the standard deals with thermo pots only.</i>

Product type or grouping	Regulation	STANDARDS				
		Domestic Standards	Please tick box if mandatory	Relevant International Standards	Extent of Alignment	State reason if MOD
Household refrigerators : safety requirements		TIS 2214-2548 (2005) TIS 1375-2547 (2004)	√	IEC 60335-2-24 (2002) IEC 60335-1, Am.1 (2004)	MOD	<u>TIS 2214-2548</u> <u>Subclause 5.7</u> Addition “Appliances used in Thailand are testes at the ambient temperature for appliances used in warm damp equable climates” <u>Subclsuse 6.1</u> Addition “Appliances used in Thailand shall be class OI, class I class II and Class III” <u>see TIS 1375-2547</u> TIS 1375-2547 <u>Subclause 24.4</u> <i>In the first paragraph, add words “TIS 166, TIS 1234” before word “IEC 60083 or IEC 60906-1”.</i> <u>Subclause 25.25</u> <i>In the last sentence of the first paragraph, replace words “IEC 60083” with “TIS 166 and TIS 1234”</i>
Appliances for skin or hair care: Safety requirements		TIS 1985-2549(2006)	√	IEC 60335-2-23	MOD	Editorial modification for systematic reference to Thai standard number.

Product type or grouping	Regulation	STANDARDS				
		Domestic Standards	Please tick box if mandatory	Relevant International Standards	Extent of Alignment	State reason if MOD
Mains operated electronic and related apparatus for household and similar general use : safety requirements		TIS 1195-2536 (1993)	√	IEC 60065 (1985)	MOD	TIS 1195-2536 <i>Sub-clause 9.1.1 the current measured shall not exceed 0.3 mA (peak)</i>
Uninterruptible power system		TIS 1291-2545 (2002)	√	-	-	-
Lighting and similar equipment : radio disturbance limits		TIS 1955-2542 (1999)	√	CISPR 15 (1999)	IDT	-
Room Air Conditioners Environment Requirement : Energy Efficiency		TIS 2134-2545(2002)	√	-	-	-
Household refrigerators : environmental requirements : energy efficiency		TIS 2186-2547 (2004)	√			
Secondary cells and batteries containing alkaline or other non-acid electrolytes - safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications		TIS 2217-2548 (2005)	√	IEC 62133 Ed.1.0 (2002)	IDT	

Diagrammatic representation or flowchart of the regime



Testing Facilities

Thailand recognises a national and international testing agencies with the approval of the IPC(Industrial product council). For full details refer to Listed of the accredited laboratories available from www.tisi.go.th

Approval (Certification) Agencies

Approvals are issued by the Thai Industrial standards Institute.

Labelling Requirements

Thailand approved products are required to be marked.

Mutual Recognition Agreement (MRA)

Japan-Thailand Economic Partnership Agreement: JTEPA

Mutual recognition arrangement on automotive products between the Thai Industrial Standards Institute of the Kingdom of Thailand and the Federal Office of Road Safety of Australia

Chapter 7: Industrial Technical Barriers to Trade of Thailand - Australia FreeTrade Agreement

Chapter 7: Technical Barriers to Trade of Thailand - New Zealand Closer Economic Partnership Agreement

Supply System and Mains Plug Configuration

This schedule provides information on the electricity supply arrangements and plug configurations that apply to new electrical and electronic equipment.

Country	Mains voltage and Tolerance	Mains Frequency and Tolerance	Applicable legislation	Mains Plug Configuration				
				Domestic Standards	Please Tick box if mandatory	Relevant International Standards	Extent of Alignment	Diagram, of Main Plug Configuration
THAILAND	220 volts single phase tolerance + 7, -3 %	50 Hz +/- 1.0 %	NA	TIS 166-2549 "3 Pin, round pin," "2 Pin, round pin,"	√	IEC 60884-1	NEQ	
	380 volts three phase tolerance + 7, -3 %	50 Hz +/- 1.0 %	NA	No specific plug	-			

6. SUPPLIER DECLARATIONS

None

7. ESSENTIAL SAFETY REQUIREMENTS

None