



**Asia-Pacific  
Economic Cooperation**

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**2017/SOM3/SCSC/JRAC/011**

Agenda Item: 6c

## **APEC JRAC Benchmarking**

Purpose: Information

Submitted by: APEC Secretariat



**22<sup>nd</sup> Joint Regulatory Advisory Committee on  
Electrical and Electronic Equipment Meeting  
Ho Chi Minh City, Viet Nam  
20 August 2017**

APEC Benchmarking																			
Economy	Australia	Brunei Darussalam	Canada	Chile ('17)	China	Hong Kong China ('17)	Indonesia	Japan	Korea ('15)	Malaysia ('17)	New Zealand ('17)	Papua New Guinea	Peru	Philippines ('17)	Russia	Singapore (17)	Chinese Taipei ('17)	Thailand ('17)	Vietnam
Total population in your economy (millions)	22	0.401		17.9	1322	7.3	229	127	51.6	30,996	4.3	6.7	29.1	104	142	5.8	23	67.7	89.3
Number of approved or registered electrical and electronic (EE) products (cumulative)	25500	27		To July 2017 are 211 types of electrical and electronic products.	109	No such requirement under current arrangement		Not Available	33000	2012: 9,170 2013: 11,280 2014: 13,754 2015: 15,257 2016: 16,163	10 Issued in NZ - (note NZ accepts Australian certification under MRA)			36 Products under mandatory product certification		60000	29,981 (May 2017)	Not available	
Number of spot checks (post market surveillance) carried out annually	100 Spot checks 1250 product complaint investigations	Not available		514 have been performed annually inspections, with a total of 1366 units verified products, corresponding to 108 different types.	>2000	3,900		N/A	683	2012: 89 2013: 97 2014: 168 2015: 129 2016: 256	240			DTI-Bureau of Philippine Standards does not conduct spot checks		1200	Implementing 20,262 spot checks for EE products in 2016	N/A	
Number of accidents (resulting in injury/death/damage to private property) from EE products per million population	Deaths = 5 Injury = 150 Property damage unquantifiable	No record		1,2 (according to the available information in SEC)	Not Available	7.1		1346 (EE Gas Appliance Petroleum Appliance) 2007 FY	Not Available	2012: 3 cases 2013: 1 cases 2014: 5 cases 2015: 4 cases 2016: 5 cases	Electrical Shock = 0 Fire = 1.2 ( 4 of these from equipment operating properly & 2 from arc by overloading equipmt)			No data		0.3 for EE products per million population in 2017 (May)	6.2 reports from EE products per million population in 2016	N/A	
Number of staff (including management and frontline officers) involved in regulating EE products	40	8		25 people for the whole country	300	17		2 to 3	10	10	2.5			8 staffs, 4 management		5	340	49	
Estimated annual budget to regulate EE products (US\$)	3 million	Under government operational budget for whole department no breakdown for regulatory activities		US \$ 300,000 approximately	1.7 million	1 million		N/A	1 million	RM 1.4 million	32000			872,411		400K	12.4 million	N/A	
% cost recovery (i.e. Revenue/Budget)	75	Under government operational budget for whole department no breakdown for regulatory activities		Does not apply	N/A	N/A		N/A	N/A	2.1	100% by levy			No data		100	60.4	No information	
Estimated annual import of EE products in US\$ (millions) World customs organisations (WCO) system classification-85 Electrical machinery & equipment and parts	6560	226		729	267000	276,622		4700	99737	No information	2900			No data		93000	58,406	No information	
Estimated annual export of EE products in US\$ (millions) WCO's system classification 85 Electrical machinery & equipment and parts	1355	N/A		We do not have information	342081	259,082		9100	180058	No information	820			No data		120000	124,047	No information	
Number of EE MRA's signed	4	2 APEC EE MRA & ASEAN EE MRA		We do not have MRA	2	1		4	1 with Singapore signed 1 with China - on going 1 with APEC - Part 1	2( APEC EE MRA & ASEAN EE MRA)	6 MRA's Approx 90% of products traded under MRA's			2 (ASEAN EE MRA and APEC EE MRA Part 1)		8	5	2	
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<b>Market Surveillance Part 1: General information</b>																			
Economy	Australia	Brunei Darussalam	Canada	Chile ('17)	China	Hong Kong China ('17)	Indonesia	Japan	Korea	Malaysia ('17)	New Zealand ('17)	Papua New Guinea	Peru	Philippines ('17)	Russia	Singapore (17)	Chinese Taipei ('17)	Thailand ('17)	Vietnam
What is your organization responsible for?	ERAC - Electrical and Electronic product. Most states and territories have a regulator which is responsible for electrical and electronic products			SEC - Superintendence of Electricity and Fuels is in charge of controlling and supervising the correct and timely fulfillment of the regulation for fuels and electrical products	CNCA - Toys and electrical and electronic products, motor vehicles and safety tires, motor vehicle tires, safety glasses, agricultural Machinery, latex products, medical devices, fire fighting products, security and protection products, decoration products and information security products	EMSD - Electrical and Electronic products			KATS - All consumer products (includes toys, food and electrical and electronic products)	EC- Regulating electricity and piped gas industry (Economic, Technical & Safety Regulations)	All aspects of Electricity and Gas Safety			DTI - Electrical and Electronic products Mechanical/building & construction materials, chemical and other consumer products		SPRING - 45 categories of controlled goods (mainly household electrical, electronic and gas products) and consumer goods	General Consumer Products (including chemical, toys, mechanical, and electrical and electronic products)	TISI - electrical and electronic products	
What is the number of shops supplying electrical and electronic products?	No record			The number of importers of EE is approximately 1,500. No record shops supplying EE	No record	34000			No record	No record	No Record			No record		1000	No record	No record	
What is the number of electrical and electronic products imported into your country for sale?	No record			415 million units of electrical and electronic products (since april 2016 to march 2017)	267000 millions (USD)				No record	No record	No Record			No record		25 millions	No record	No record	
What is the estimated annual budget for regulatory control on electrical and electronic products including market surveillance activities and other related enforcement work?				US \$ 1,250,000	1.7m (USD)	1m (USD)			1m (USD)	RM 1.4 million	NZ\$ 3.0 M			No record		650,000 (USD)	Not available	132500 (USD)	

How many staff directly administers the regulatory regime for electrical and electronic product safety (include management and frontline officers)				42 people	300	17			10	10	9			8 staffs, 4 management		5	50	49	
Total population in your economy (millions)	22	0.401		17.9 millions	1322	7	229	127	51.6	30.996	4.7	6.7	29.1	104	142	5.8	23	67.7	89.3
What is the GDP of your country?	(AUD)998,121m			US\$13,792 per capita	US\$4,200,000m	US\$19b			US1,321.2b	GDP at 2010 Price-RM million 2015 - RM1,062,805 GDP at Current Price-RM million 2015	185 B US\$			329,716b in 2017* *2017 estimate from the International Monetary Fund		US297b	US 578,506 m	7816m (baths)	
<b>Market Surveillance Part 2: Regulatory Regime of Electrical and Electronic Product Safety</b>																			
<b>Economy</b>	<b>Australia</b>	<b>Brunei Darussalam</b>	<b>Canada</b>	<b>Chile ('17)</b>	<b>China</b>	<b>Hong Kong China ('17)</b>	<b>Indonesia</b>	<b>Japan</b>	<b>Korea</b>	<b>Malaysia ('17)</b>	<b>New Zealand ('17)</b>	<b>Papua New Guinea</b>	<b>Peru</b>	<b>Philippines ('17)</b>	<b>Russia</b>	<b>Singapore ('17)</b>	<b>Chinese Taipei ('17)</b>	<b>Thailand ('17)</b>	<b>Vietnam</b>
Is there a regulation to control electrical and electronic product safety in your country?	Electricity (Consumer Safety) Act			Supreme Decree No. 298 from Ministry of Economy, Development and Reconstruction, approving Regulation for the Certification of Products	Regulations of the People's Republic of China on Certification and Accreditation	Electrical Products Safety Regulation			Electrical Appliances Safety control Act	Electricity Supply Act 1990 & Electricity Regulation 1994	Electricity Act			Department Administrative Order No. 04:2008, 05:2008, 02:2007, & 15-01:2015		Consumer Protection (Safety Requirements) Regulations (CPS) & Consumer Protection (Consumer Goods Safety Requirements) Regulations 2011 (CGSR)	The Commodity Inspection Act 2007	Industrial Product Standards Act B.E 1968 and its amendments	
What is the regulatory regime of electrical & electronic safety in your country?	For equipment not on the list of prescribed equipment in AS/NZS 4417.2 there is no need for certificate of approval before sales however, the equipment must still be safe before it is sold or used. AS/NAS 3820 essential safety requirements for low voltage electrical equipment is a standard that can be used as a basis for showing compliance to the legislation			Products that have mandatory certification certificate must have approval before being marketed in the country ( S.D. 298/2005 )	Pre market conformity assessment regime (only part of the electrical & electronic products have to be have to be registered or approved before putting into the market)	Post market regime but the supplier should keep the certificates of safety compliance			Pre market conformity assessment regime (only part of the electrical & electronic products have to be have to be registered or approved before putting into the market about 148 items subject to safety management)	Certificate of Approval (CoA) from EC and safety label is required in order for the regulated electrical equipment to be placed into the market.	All LV and ELV EEE covered by Risk based with three intervention levels: High Risk - approval or type testing and accredited certification; Medium Risk - NZ supplier SDoC and test report; Low Risk - category supplier responsible for safety.			Pre market assessment conformity on household appliances; lamps & related equipment, wires & cables and wiring devices		Pre-market assessment conformity on 41 categories of controlled goods under CPS & post-market assessment conformity for EEE products under CGSR	Pre market conformity assessment on most EE products.	Pre market assessment conformity on all the electrical & electronic products need to be registered or approved before putting onto market	
Do product suppliers including importers need to be registered by the authority?	No			Servicio de Impuestos Internos(SIII)	Yes	No			Yes	Yes				Yes		Yes	Yes	Yes	
Which type of electrical & electronic products are covered or under control by the regulation?	Electrical equipment falls into two categories - prescribed and non prescribed (Declared and non-declared) the list of prescribed articles can be found in the regulations. Generally, a product appearing on this list must have a certificate of approval and be marked appropriately. All non prescribed articles must generally still comply with AS/NZS 3820			Appliances, low voltage materials, lighting, conductors, measuring instruments, electric hand tools, rotary machines, Audio and Video Equipment and ITC	Some controlled electrical and electronic products. AV, IT, Household Appliances, Wire and cable Electric tool, Telecommunication Terminal Equipments, Lighting Apparatus, welding machines, Lao Voltage Electrical Apparatus, Switches for Circuits, InsulationProtective and Connection Devices, small power motors.	All household electrical & electronic products			Some controlled electrical and electronic products designated electrical appliances subject to the safety management rated at between 50V and 1000V for AC in the enforcement regulation of Electrical Appliances Safety Control Act	34 categories of domestic electrical equipment	80 Types of equipment			Mostly household electrical and electronic products		41 category of controlled products	Household appliances, luminaires, cables and wires, audio video equipment and information technology equipment	some controlled appliances, electrical equipment and lighting equipment	
Is there a website to provide information to the public on electrical and electronic product safety?	<a href="http://www.era.gov.au">http://www.era.gov.au</a>			<a href="http://www.sec.cl">www.sec.cl</a>	<a href="http://cnca.gov.cn">http://cnca.gov.cn</a>	<a href="http://www.emsd.gov.hk">http://www.emsd.gov.hk</a>			<a href="http://www.kats.go.kr">http://www.kats.go.kr</a>	<a href="http://www.st.gov.my/">http://www.st.gov.my/</a>	<a href="http://www.energysafety.govt.nz">www.energysafety.govt.nz</a>			<a href="http://www.bps.dti.gov.ph">http://www.bps.dti.gov.ph</a>		<a href="http://www.spring.gov.sg/safety">http://www.spring.gov.sg/safety</a>	<a href="http://www.bsmi.gov.tw/wSite/ct?xitem=8673&amp;ctNode=811&amp;mp=2">http://www.bsmi.gov.tw/wSite/ct?xitem=8673&amp;ctNode=811&amp;mp=2</a>	<a href="http://www.tisi.gov.tl">http://www.tisi.gov.tl</a>	
Are electrical and electronic products supplied through the internet covered in electrical product safety regulations?	Yes			Yes. The obligation must be fulfilled whatever form of marketing that is used	Yes	Yes			Yes	Yes	Yes			No		Yes	Yes	No	
Is there cross border cooperation on exchange of information about unsafe electrical & electronic products?	Yes, ERAC provides this information to all jurisdictions			Yes. Through the National Consumer Service, through alerts	Yes agreement between AQSIQ and EMSD, HK and China	Yes, with AQSIQ of China			Conclude MOU with ministry of economics trade and Industry (MET) in Japan	No	Yes, especially with Australia.			None		Yes, with Australia, New Zealand and Chinese Taipei, China	Cooperation on exchange of information with USA, Singapore, New Zealand and China respectively associated with consumer product safety matters	No	
Are electrical and electronic products brought across borders by people for personal use covered under legislation?	Although there are some discrepancies regarding electrical equipment approval between states and territories and New Zealand there is a mutual recognition agreement held			No. The regulation applies only to the marketing of products	No	No			No	Equipment for personal use shall get approval from EC	No			No		No	No	No	

Is there Product liability law on electrical and electronic products?	Yes			Yes	Yes	Yes under the Consumer Goods Safety Ordinance			Yes	Electrical appliance need to comply with Electricity Supply Act and Electricity Regulations	Yes			Yes, Department Administrative Order No. 02:2007		No	No	Yes	
Is there mandatory safety or compliance mark requirement on electrical & electronic products?	Different approval markings are issued by each jurisdiction for approved prescribed electrical equipment. Use of the Regulatory Compliance Mark is only available to the supplier who places the product on the market in Australia or New Zealand			It is mandatory that all regulated products (211) that have approval certificate must bear the marking SEC (QR seal)	It is Mandatory for specified or controlled electrical & electronic products	No			It is Mandatory for specified or controlled electrical & electronic products	It is mandatory to affix safety label (SIRIM-ST) on the controlled electrical equipment.	A voluntary marking (RCM) is available. This will become mandatory under the EESS Scheme with Australia. Likely to be 2021			It is Mandatory for specified or controlled electrical & electronic products		It is Mandatory for specified or controlled electrical & electronic products under CPS	It is Mandatory for specified or controlled electrical & electronic products	It is Mandatory for specified or controlled electrical & electronic products	It is Mandatory for specified or controlled electrical & electronic products
Is there mandatory safety or compliance labelling requirement on electrical & electronic products?	The compliance mark is only displayed on articles appearing on the prescribed list. However all equipment must display a label			Only in some products an Energy Efficiency labeling and labeling safety warning are required	It is mandatory for specified or controlled electrical & electronic products	All products should provide essential information including rated voltage & frequency, rated power input, model and trade mark			It is mandatory for specified or controlled electrical & electronic products	It is mandatory to affix safety label (SIRIM-ST) on the controlled electrical equipment.	See above			It is mandatory for specified or controlled electrical & electronic products		It is Mandatory for specified or controlled electrical & electronic products under CPS	It is mandatory for specified or controlled electrical & electronic products	It is mandatory for specified or controlled electrical & electronic products	It is mandatory for specified or controlled electrical & electronic products
Control on Internet sales?	Yes	Yes		yes	Yes	Yes		Yes	Yes	Yes	Yes			No		Yes	Yes	No	

**Market Surveillance Part 3 - Monitoring and compliance of electrical & electronic products on the market**

Economy	Australia	Brunei Darussalam	Canada	Chile ('17)	China	Hong Kong China ('17)	Indonesia	Japan	Korea	Malaysia ('17)	New Zealand ('17)	Papua New Guinea	Peru	Philippines ('17)	Russia	Singapore ('17)	Chinese Taipei ('17)	Thailand ('17)	Vietnam
What are the methods employed to monitor the compliance of electrical & electronic products on the market?	Check mandatory mark/label on product, investigate complaints, investigation of incidents, follow up on news media about electrical product			Direct inspection outlets and analysis of information from importers through agreement with the National Customs Service, and web surveillance.	Shop inspection, check safety certificate from inspectors, check mandatory mark/label on product, investigate complaints, investigate incidents, conduct surveillance test, followup on news media reports of electrical incidents, monitor followup overseas recall notices	About 3900 annual shop inspections, check safety certificate from suppliers, conduct surveillance test, investigate complaints, investigate fire incidents related to electricity, follow up on news and media reports about electrical product incidents, monitor and follow up on overseas product recalls			Shop inspection, check safety certificate from suppliers, check mandatory marks/labels, investigate complaints, investigate incidents, conduct surveillance tests, followup news media about electrical product incidents, carry out factory audits	Premis inspections, check mandatory labels, conduct surveillance test, carry out factory audits, investigate complaints, stakeholder meeting.	Audits of retail and wholesale premises. Joint Audits with Australia. Audits of internet sales. Compliance reports from consumers and other traders.			Shop inspections, checking of safety certificates from suppliers, check ing of mandatory mark/label, investigate complaints, conduct surveillance test (seldom), follow up on news media reports of incidents/accidents, carry out factory audits.		Approx 1200 shop inspections, check supplier safety certificate, Check mandatory labels/mark, Investigate complaints, conduct surveillance test, follow up news media reports on incidents/accidents, monitor overseas recall notices.	Check mandatory marks/labels, investigate complaints, conduct surveillance tests, follow up news and media about electrical product incident/accidents, monitor/followup overseas recall notices, carry out factory audits	Shop inspections once per year, check mandatory labels/markings, conduct surveillance test, carry out factory audits	
What is the penalty for a person supplying unsafe electrical & electronic products or product that do not meet regulatory requirements	Compound fine with court proceeding, fine only, destroy unsafe electrical & electronic product, conduct compulsory recall.			Compound fine with court proceedings, destroy unsafe electrical & electronic products, conduct compulsory recall, rejected products cannot be commercialised in Chile so importers can destroy them or send them abroad.	Fine and imprisonment, fine not more than 3 times the products value, conduct compulsory recall, revocation of business licence.	Fine and imprisonment, Fine Max \$500,000, conduct compulsory recall, conduct voluntary recall.			Fine and imprisonment, Max 3 years or 30 million KRW, destroy unsafe electrical & electronic products	Fine not exceeding RM5000 or imprisonment not exceeding 1 year or both.	Varies. Both Spot fines and court proceedings.			Seizure, forfeiture or condemnation of products which are subject of the offense, imposition of administrative fine (max Php 300,000.00 per violation), cancellation of any permit/license, compulsory recall		Fine not exceeding S\$10000 or 2 years jail or both	Fine US\$250K Max, withdraw certificates, recall products, take corrective actions, and prohibit importing/exporting/producting/manufacturing/displaying/selling for a specified period.	Fine and imprisonment, max 2 years or 1 mill Baht, destroy unsafe electrical & electronic products.	
How many prosecution cases for people supplying non-compliant electrical & electronic product annually?	Not provided			223 shops	Not provided	17 in 2016			Not provided	8 compound have been issued.	Not provided			No record		26(Apr) per year	1	5 (Apr) per year	
What is the safety standard adopted on electrical & electronic products?	National standard but is equivalent to the requirements of IEC standard			International Standard for International Electrotechnical Commission ( IEC )	National standard but is equivalent to the requirements of IEC standard	IEC Standard, En standard, National standard but is the equivalent of IEC standard			National standard harmonised with IEC standard with conditions localised for Korea	IEC Standard; or Malaysian Standard (MS).	Joint Standards with Australia based on IEC guidelines.			National Standard but is equivalent to the requirements of IEC standard		IEC standard	IEC Standard and national standard but is the equivalent to the requirements of IEC standard	IEC standard	
Does the customs authority check the imported electrical & electronic product at the border control point?	No			Yes, They check the entry of goods into the country.	Yes	No			Yes	Yes	No			Yes		No	Yes	Yes	
What is the safety document required for electrical & electronic products?	Test report issued by an accredited testing laboratory			Certificate issued by national certification bodies approved by the authority (SEC).	Certificate issued by designated conformity assessment bodies or certification bodies approved by the authority	Declaration of conformity issued by product manufacturer and test certificate issued by accredited testing laboratory. Certificate issued by designated conformity assessment bodies or certification bodies approved by the authority.			Certificate issued by designated conformity assessment bodies or certification bodies approved by the authority	Test report issued by EC's recognized testing laboratory	Test Reports and certification and Australian Regulatory Approvals.			Certificate issued by the authority based on the assessment of the submitted safety certificates.		Certificate issued by the designated conformity assessment bodies or certification bodies approved by the authority.	Declaration of conformity issued by product manufacturer, certificate issued by the authority based on the assessment of the submitted safety certificates, and certificates issued by designated conformity assessment bodies or certification bodies approved by the authority.	sample should be provided to the authority for testing before issuing acceptance certificate. Quality system documents of the manufacturer	

What are the possible corrective actions can a supplier take if their electrical & electronic products have been found to be unsafe during market surveillance activities?	Public recall (about 40 annually)			You can go back through the certification process if it is possible to solve the reason why it was not the first certification , can be exported to another country , or they can destroy the rejected product.	Free repair of unsafe products for the consumer, Withdrawal of unsafe products from market (i.e. stop selling the product), public recall	Free repair of unsafe products for the consumers, withdrawal of unsafe products from the market (i.e. stop selling the product). Public recall.			Withdrawal of unsafe products from market (i.e. stop selling the product)	-withdrawal of unsafe product from market. -public product recall. -repair and retested.	Remove from sale. Recall. Public notice to remove from service.			Withdrawal of unsafe products from market (i.e. stop selling the product), Public recall	Withdrawal of unsafe products from market (i.e. stop selling the product)	Withdrawal of unsafe products from the market (i.e. stop selling the product) and about 268 products withdrawn in 2016	Withdrawal of unsafe products from market (i.e. stop selling the product)	
How many designated/recognised testing laboratories or certification bodies (including local and overseas)	Refer to NATA website			35 Testing laboratories (26 from abroad) and 10 certification bodies	Certification bodies (EE:1, Toys:2), testing laboratories (EE:85, Toys:15)	109 Recognized Certification Bodies and 6 Recognized Manufacturers worldwide			3 testing laboratories/certification bodies	-SIRIM QAS International Sdn. Bhd. -QAV Tech Sdn. Bhd. -Lab under Lab Accreditation Scheme of Malaysia. -Lab under IECEE CB Scheme -Lab under APLAC -Lab under ILAC -Lab under ASEAN EEE MRA	Unknown			1 certification body, 7 testing laboratories	33 testing laboratories, 6 certification bodies	153 EMC testing laboratories and 74 safety testing laboratories for local and overseas	10 testing laboratories	
What percentage of fires are caused by electrical product faults compared to all fires	No information			We do not have this information	No information	0.84% in 2015 (53 cases related to EP and total of 6321 fire incidents in 2015)			No Information	No information	No Accurate information.			No Information	0% caused by controlled goods	No record	No Information	
What are the top 5 risky electrical & electronic products	Hair straighteners, bathroom fan, light or heaters, room heaters, Christmas lights, TV's			Adapters and sockets , kettles ,lighting chains and room heaters	No Information	Washing Machine, dehumidifier, microwave oven, induction cooker, refrigerator			Storage water heater, electric mat, refrigerating appliance, electric rice cooker, washing machine	Plug Top Socket Outlet Residual Current Device Water Heater Portable Power Tools	Outlet devices (EPODs), EV Charge controllers, RCDs, Socket Adapters, LiPo Batteries,			No Information	Washing machine, electric airpot, standing/table fan, juice blender, ceiling fan	Dehumidifiers, Air conditioner, Washing Machine, Television, Refrigerator	Appliances for skin or hair care, AC electric fans, Electric fryers, Grills and Toasters and Instantaneous water heaters	