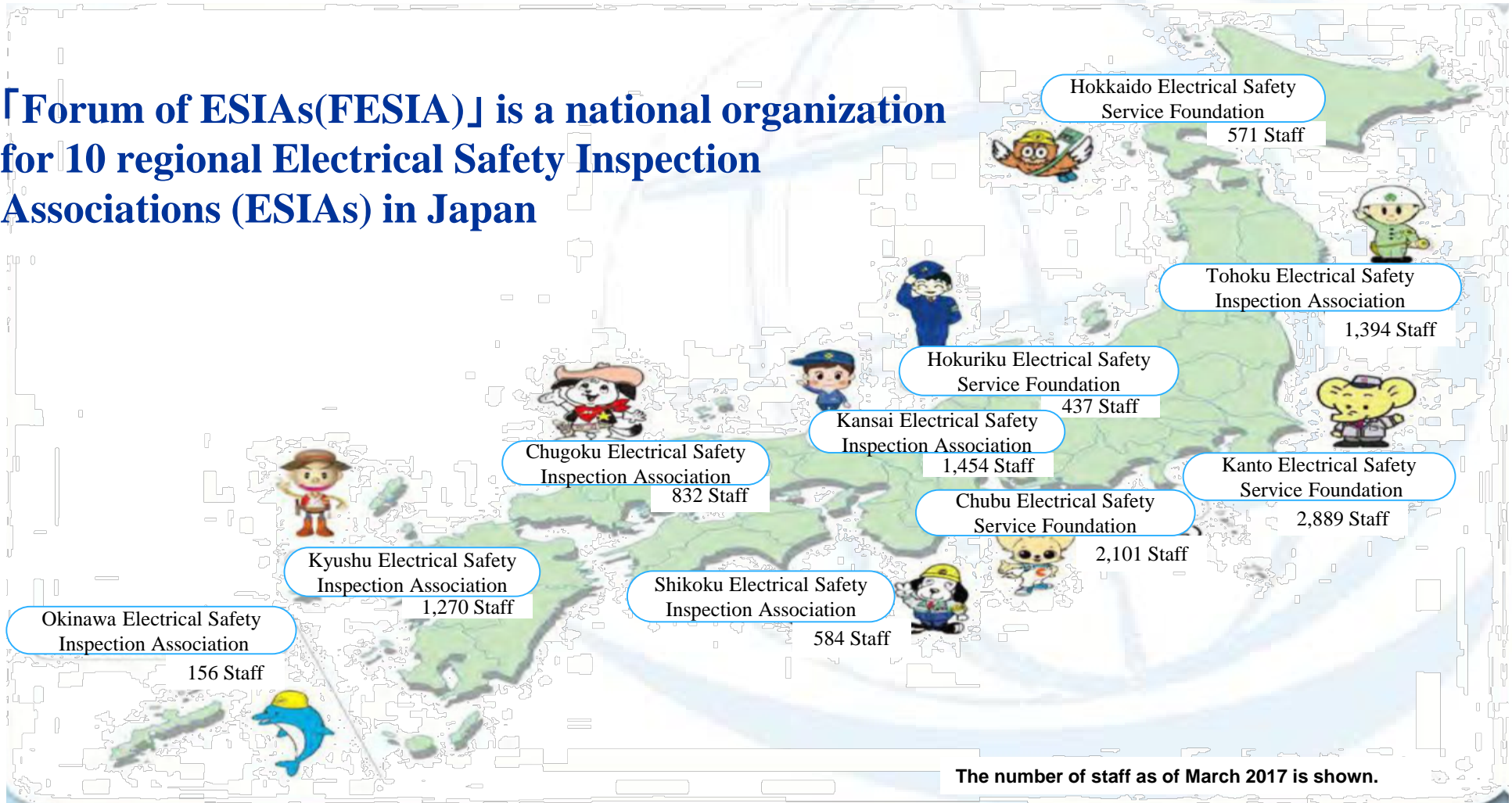


Anti-Counterfeiting Measures on Electrical Appliances in Japan

Seiichi Matsuo
Forum of Electrical Safety Inspection Associations, Japan

Locations of Electrical Safety Inspection Associations in Japan

「Forum of ESIA(FESIA)」 is a national organization for 10 regional Electrical Safety Inspection Associations (ESIAs) in Japan



The number of staff as of March 2017 is shown.

Primary services of Electrical Safety Inspection Associations (ESIAs) in Japan

(1) Survey/diagnosis service

(2) Safety management service

(3) Public relations service

(1) Survey/diagnosis service

- Conduct periodic door-to-door surveys and diagnoses on electrical safety at general households, shops, etc. on behalf of electric power companies



(2) Safety management service

- Conduct safety management for electrical equipment of buildings, factories, etc. on behalf of equipment owners/operators



(3) Public relations service

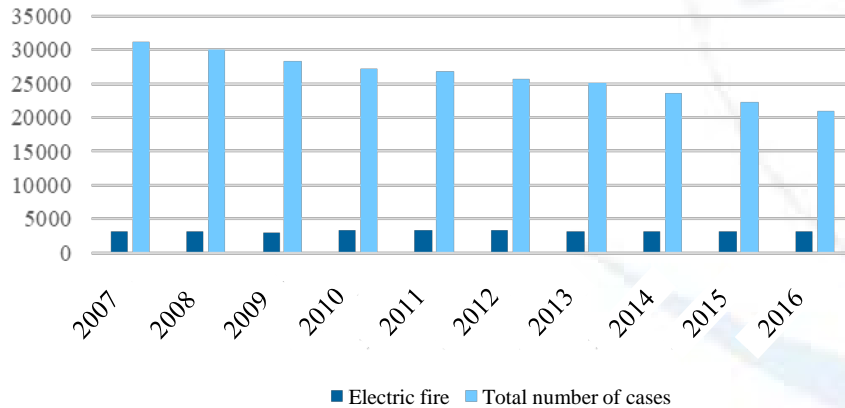
- Public relations (communication) including educational and public awareness activities on electrical safety, energy-saving, etc.



Electric fires in Japan

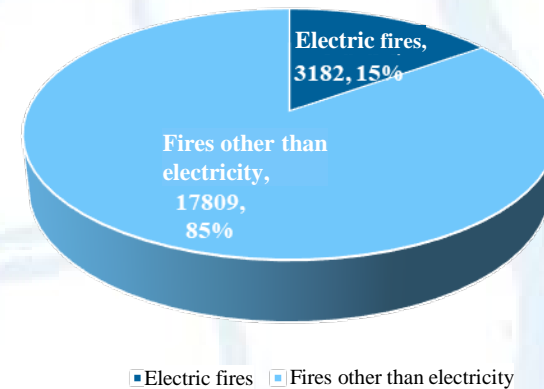
The fire breakout from electrical facilities, etc. accounts for about 15% of total building fires.

Changes of the ratio of fire breakout from electrical facilities, etc.



* Of the causes by building fires, wiring devices, wiring of electrical lights, phones, etc., electrical equipment, and electrical devices were classified as electrical facilities, etc.

Ratio of fire breakout from electrical facilities, etc. in 2016



The number of electric fires decreased but the ratio of electric fires increases with an increase of the ratio of electricity to energies.

To use the electricity safely

1. Conduct electrical work properly.
2. Operate and maintain electrical facilities properly.
3. Prevent distribution of counterfeit products and copycat products of electrical equipment, which give rise to safety hazards.
4. Publicize the safety of electricity.



Important

Security System related to Electric Facilities

1. Electricity Business Act

- [Purpose] • To protect interests of electricity users and assure public safety.
- [Regulations] • To prescribe technical standards for electrical facilities and make them to conform to the standards.
- To regulate the construction, maintenance, and operation of electric facilities for private use, etc.
- To make electrical suppliers investigate the conformity of electric facilities for general use to technical standards.

2. Electrical Appliance and Materials Safety Act

- [Purpose] • To prevent hazards and disturbances to electric facilities for general use resulting from electrical appliances and materials.
- [Regulations] • To regulate the manufacture, sale, etc. of electrical appliances and materials.

3. Electricians Act

- [Purpose] • To prevent disaster occurrence resulting from defects of electrical work (lower than 500 kW).
- [Regulations] • To prescribe qualifications and responsibilities of a person engaged in electrical work.

Characteristics of Japan as viewed from Anti-Counterfeiting Measures on Electrical Appliances

1. Japan is an island country.

Counterfeit products are cracked down by customs duties.

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Japan



2. Legal regulations related to electrical security

Electricity Business Act, Electrical Appliances and Material Safety Act, Electricians Act, and others.

3. Appropriate implementation of regulations concerning electrical safety

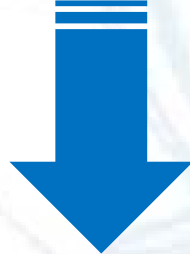
Implementation of electrical safety administration by Ministry of Economy, Trade and Industry and its ten regional bureaus and branches, and regional industrial safety and inspection departments.

Overview of Electrical Appliances and Materials Safety Act

What is Electrical Appliances and Materials Safety Act?

(Electrical Appliance and Material Safety Act)



- A law that regulates the manufacture, sale, etc. of electrical appliances and materials.
- A law that fosters voluntary activities by private businesses to ensure the safety of electrical appliances and materials.



Prevention of hazards (electric shocks, fires, etc.) and damages (radio disturbance, etc.) resulting from electrical appliances and materials.

Procedures requested by Electrical Appliances and Materials Safety Act

Manufacturers and importers of electrical appliances and materials need the following procedures:

1. Notification of commencement of manufacturing or import business
2. Obligation of technical standards compliance
3. Conformity assessment or inspection (specified electrical appliances and materials only)
4. Voluntary inspection
5. **Labeling requirements** ( or )

Business operators who sell target electrical appliances and materials are not allowed to sell them unless they confirm the content of “labeling requirements.”

What is conformity assessment or inspection?

- Assessment or inspection to make sure the relevant product conforms to the technical standards of Electrical Appliances and Materials Safety Act.
- Assessment or inspection to make sure that a plant manufacturing the relevant product is able to manufacture and inspect the relevant product as per the standards.



A person who manufactures or imports specified electrical appliances and materials must have the conformity assessment or inspection by a registered conformity assessment body of Electrical Appliances and Materials Safety Act and must prove that the relevant product conforms to the technical standards, etc. before the product is marketed in Japan.

Regulated products

Regulated products are prescribed by Electrical Appliances and Materials Safety Act

1. Parts of electrical facilities for general use and machines, appliances, and materials used in connection therewith.
2. Portable power generators
3. Secondary batteries

Specifically, 457 items specified by Ordinance for Enforcement of Electrical Appliances and Materials Safety Act (Cabinet Order) are designated using the positive list approach.

1. Specified Electrical Appliances and Materials (116 items)

Example:

- Cables , Cords
- Thermal fuse
- Wall sockets
- Battery chargers
- AC adapters
- Molded case circuit breakers



2.Non-Specified Electrical Appliances and Materials(341 items)

Example:

- Washing machines
- Air conditioners
- Refrigerators
- Lighting products
- Television receivers
- Lithium-ion rechargeable batteries



PSE labeling

Manufacturers or importers must affix labeling of PSE mark and the manufacturer or importer name (abbreviation of the assessment or inspection body in the case of specified electrical appliances and materials).



Specified electrical appliances and materials



OO Assessment
or Inspection
Body

OOO Trading, Inc.

Non-specified electrical appliances and materials



OOO Trading, Inc.

To make manufacturers or importers observe Electrical Appliances and Materials Safety Act

1. Periodical marketed products trial-purchase tests by the Administration
2. On-site investigation on dealers by municipalities, prefectures and other local governments
3. Analyses and evaluations of accidents arising from electrical appliances

Marketed products trial-purchase tests by METI

In order to achieve prevention and recurrence prevention of accidents caused by electrical appliances, METI (Ministry of Economy, Trade and Industry) conducts trial-purchase tests every year by purchasing commercially available electrical appliances and materials for the purpose of confirming the observance condition of the matters prescribed in Electrical Appliances and Materials Safety Act (conformity situation to technical standards and appropriateness of labeling on the basis of Ordinance for Enforcement of Electrical Appliances and Materials Safety Act), and verifying safety of electrical appliances and materials.



Target items of trial-purchase tests: All that are subject to safety regulations of electrical appliances and materials (457 items)

*Being bound by the budget, the tests are conducted by systematically selecting items in such a manner that all the items subject to the regulations are tested at least once in about 5 years.

Breakdown of 2016 trial-purchase tests

Category	Electrical appliances and materials with trial-purchase tests conducted (excerpt)	Number of items	Number of models
[1] Commercial equipment (wiring materials)	Time switch, photoelectric automatic flasher, float switches, molded case circuit breakers, earth leakage circuit breakers, etc.	12 items	30 models
[2] Commercial equipment (other than wiring materials)	Electric massaging tools, dc power units, portable generators, electric baking furnaces, rice milling machine, electric drills, advertisement pillars, etc.	36 items	108 models
[3] Household equipment (home appliances)	Electric foot warmer, electric kotatsu, electric toaster, clothes iron, electric fan, ultrasonic cleaning device, etc.	35 items	135 models
[4] Energy-saving equipment (home appliances)	Electric refrigerator, desk lamp, hand lamp, lithium-ion battery, etc.	4 items	18 models
[5] Energy-saving equipment (follow-up)	Electric rice-cooker, electric kettle, vacuum cleaner, microwave oven, electric water heater, etc.	5 items	35 models
Total		92 items	326 models

*Particular items: Items found particularly necessary and purchased with accident information, etc. taken into account.

Marketed products trial-purchase tests by METI

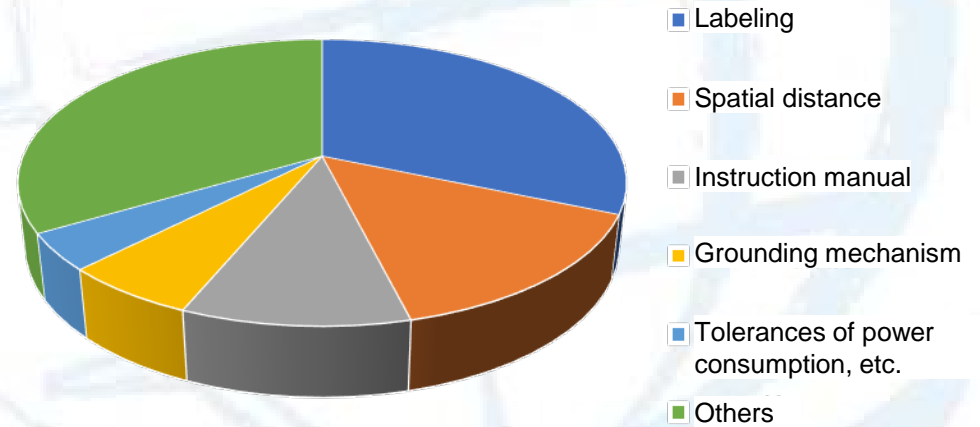
Breakdown of nonconforming items (2016)

Designation	Number of items	Technical standard	PSE labeling standard
[1] Commercial equipment (wiring materials)	5 items	3 models (10.0%)	3 models (10.0%)
[2] Commercial equipment (other than wiring materials)	27 items	43 models (39.8%)	6 models (5.6%)
[3] Household equipment (home appliances)	25 items	49 models (36.3%)	1 model (0.7%)
[4] Energy-saving equipment (home appliances)	3 items	10 models (55.6%)	-
[5] Energy-saving equipment (follow-up)	5 items	16 models (45.7%)	2 models (5.7%)
Total	65 items	121 models (37.1%)	12 models (3.7%)

Marketed products trial-purchase tests by METI

Breakdown of nonconforming items – Interpretation of technical standards (2016)

Items nonconforming to interpretation of technical standards	Number of nonconformities	Percentage
Labeling	77	28.9%
Spatial distance	36	13.5%
Instruction manual	25	9.4%
Grounding mechanism	15	5.6%
Tolerances of power consumption, etc.	10	3.8%
Others	82	30.8%
Total	266	100%



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