

**APEC/APLMF Seminars and Training Courses in Legal Metrology
(CTI-11/2006T)**

Seminar on Electricity Meters

19-22 March, 2007

at the Yu Yang Hotel in Beijing, the People's Republic of China

Draft Program *as of January 19, 2007*

Organizers:

1. Asia-Pacific Economic Cooperation (APEC)
2. Asia-Pacific Legal Metrology Forum (APLMF)

Supporting Organizations:

1. General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China (AQSIQ)
2. Japan Electric Meters Inspection Corporation (JEMIC)
3. National Metrology Institute of Japan (NMIJ)
4. Measurement Canada, Government of Canada

Speakers:

1. Mr. Takao Oki, Director, Technical Research Laboratory, Japan Electric Meters Inspection Corporation (JEMIC)
2. Mr. Masatoshi Tetsuka: Senior Staff of Verification Management Division, Japan Electric Meters Inspection Corporation (JEMIC)
3. Mr. Kazunori Hata: Type Test Group, Verification Management Division, Japan Electric Meters Inspection Corporation (JEMIC)
4. Mr. Masaru Nagashima, Fuji Electric Systems Co., Ltd, Japan
5. Mr. Lu Zuliang, National Institute of Metrology, PR China

Main Objective of the Seminar:

Electricity metering is one of the essential technical infrastructures, which will ensure safety and welfare for the citizens in all economies. In addition, according to the enhanced international free trade, it is getting more important to remove technical or legislative barrier to trade electricity and/or electricity meters (watt-hour meters). However, there remain some problems due to unconformity in the regulations and systems on electricity meters employed in each economy or region.

Main target of this seminar is to assist APEC and APLMF member economies to develop common understanding about the current standards and regulations on electricity meters and thus meet the APEC objective to establish a harmonization in legal metrology with OIML international recommendations. This seminar also put importance on the international communication and exchange of information between the participating economies.

Actual contents of the seminar would be focused on the understanding of basic knowledge on electricity metering, overview and construction of electricity meters, and current situation about the international standards and regulations related to the electricity meters.

Target Audience:

Technical experts in charge of type approvals and verifications of electricity meters and officials in charge of regulations including legislations related to electricity metering are encouraged to attend the seminar. All participants are required to participate in the seminar actively by preparing a detailed report of the economy about 20 minutes.

Registration:

Fill the “**Registration Form**” and send it to the APLMF secretariat by **February 16, 2007**.

Travel Support:

APEC travel support, composed of a roundtrip airfare in a discount economy class and per diem including accommodation, would be prepared for the participants from **Chile, Indonesia, Malaysia, Mexico, Papua New Guinea, Philippines, Peru, Russian Federation, Thailand and Viet Nam**. APLMF travel support would be complementary prepared for the non-APEC full-member economies; **Cambodia, DPR Korea and Mongolia**. The maximum number of supported participants is limited to **one** for **each economy**. The final eligible participants will be decided after an approval by the APEC/APLMF secretariat. All supported participants are required to prepare a presentation with a document during the seminar.

Visa assistance:

If you need visa to enter PR China, please fill the **bottom part of the Registration Form** and send it to the APLMF secretariat by **February 16**. On your request, the host in PR China will send an official letter of invitation for visa application.

Venue and Accommodation:

Yu Yang Hotel

No. 18 Xinyuanxili Middle Street, Chaoyang District, Beijing, PR China

Tel: +86-10-64669988, Fax: +86-10-64666672

<http://www.yuyanghotel.net/>

Accommodation for the participants will be prepared at the Yu Yang Hotel with the rate RMB510 (USD65)/night. Please send the **Hotel Reservation Form by February 28** to the host to reserve a room.

Contact Persons for the Seminar:

1. APLMF Secretariat (registration, travel support and lectures by JEMIC)

Tsuyoshi Matsumoto and Ms. Ayako Murata

NMIJ/AIST Tsukuba Central 3-9, 1-1-1 Umezono, Tsukuba, Ibaraki 305-8563, Japan

Tel: +81-298-61-4362, Fax: +81-298-61-4393

E-mail: e.sec@aplmf.org, sec@aplmf.org

2. Host in PR China (visa assistance, accommodation and venue)

Mr. HAN Jianping and Mrs. XIE Hongyan

Dept. of International Cooperation,

General Administration of Quality Supervision, Inspection and Quarantine

NO. 9 Madiandonglu, Haidian District, Beijing, the People's Republic of China

Tel: +86-10-82262171, Fax: +86-010-82260215

E-mail: hanjp@aqsiq.gov.cn & xiehy@aqsiq.gov.cn

Draft Program

<u>Day 1 - Monday, 19 March</u>	
10:00 - 10:30	Opening Ceremony · Welcome Address by AQSIQ · Opening Address by the APLMF · Take a Group Photo
10:30 - 11:00	<i>Coffee Break</i>
11:00 - 12:30	Roll Call Overview of the Measurement System and Current Situation about Electricity Meters in Each Economy Presented by the Participants ^{*1}
12:30 - 14:00	<i>Lunch Break</i>
14:00 - 15:30	Continue the Presentation ^{*1}
15:30 - 16:00	<i>Coffee Break</i>
16:00 - 17:00	Continue the Presentation ^{*1}
<u>Day 2 - Tuesday, 20 March</u>	
09:00 - 10:30	Introduction to the Seminar ^{*2} · Outline of Electricity Meters: Category / Classification
10:30 - 11:00	<i>Coffee Break</i>
11:00 - 12:30	· Developments for Electricity Meters
12:30 - 14:00	<i>Lunch Break</i>
14:00 - 15:00	· Legislation · Type Approval: Procedure / Test / Statistics
15:00 - 15:30	<i>Coffee Break</i>
15:30 - 17:00	· Verification: Procedure / Test / Sealing / Statistics · Verification Standards
<u>Day 3 - Wednesday, 21 March</u>	
09:00	<i>Leave the hotel lobby for the tour</i>
10:00 - 12:30	Technical Tour (<i>details will be informed later</i>) ^{*2*3*4}
12:30 - 14:00	<i>Lunch Break</i>
14:00 - 15:30	Technical Tour (<i>details will be informed later</i>) ^{*3*4}
15:30 - 17:00	Tour (<i>details will be informed later</i>) ^{*4}
17:30	<i>Go back to the hotel</i>
18:30	<i>Leave the hotel lobby for the dinner (tentative)</i>
19:00 - 21:00	<i>Farewell Dinner (tentative)</i> ^{*4}
<u>Day 4 - Thursday, 22 March</u>	
09:00 - 10:30	Overview of IEC Standards Relative to the Electricity Meters (IEC TC13) ^{*2} · Abstract of TC13 · Standards of TC13

	Current Situation on the Revision of OIML Recommendations ^{*2} · Abstract of The Revision Work of R46 · Contents of the Revision R46 · Relationships of International Standards and Recommendations
10:30 - 11:00	<i>Coffee Break</i>
11:00 - 12:30	Overview of the Measurement System and Current Situation about Electricity Meters in PR China (<i>tentative</i>) ^{*3} .
12:30 - 14:00	<i>Lunch Break</i>
14:00 - 15:00	Review / Questions / Answers for All Presentations.
15:00 - 15:30	<i>Coffee Break</i>
15:30 - 16:00	Closing Ceremony · Give a Certificate to All Participants · Closing Address by the APLMF. · Closing Address by AQSIQ.

Additional Comments:

***1 This session will be presented by the participants**

A participant from each economy provides a presentation (about 20 minutes) on the measurement system and current situation about electricity meters in his/her economy. Followings are the recommended topics of the presentation:

- 1 What organization(s) regulate the measurement of electricity?
- 2 Are electricity meters required to have type approval? If required, reply the following four inquiries.
 - 2.1 What organization performs type approval?
 - 2.2 How many type approvals do you perform in a year?
 - 2.3 How long is the validity of a type approval?
 - 2.4 When the type approval expired, is the meter tested again?
- 3 Are electricity meters required of verifications? If required, reply the following six inquiries.
 - 3.1 What organization performs verification?
 - 3.2 How many electricity meters are verified in a year?
 - 3.3 How long is the validity of the initial and subsequent verifications?
 - 3.4 When the initial verification expired, are the meters re-verified or discarded?
 - 3.5 How do you decide the length of validity of verification?
 - 3.6 Are the meters verified at the place of service?
- 4 Do you have a national primary measurement standard for electricity meters? If not, where is the standard traceable to?
- 5 What kinds of electricity meters are used? For examples, active meter, reactive meter, VA meter, demand meter, classification of meters, rated value-connection mode, frequency, voltage, current (ex. 1phase-2wire, 240V, 10-40A, 50Hz), single-tariff, multi-tariffs, etc.
- 6 Are there any resolution processes for measurement complaint/dispute?

***2 These lectures will be given or instructed by Mr. Oki, Mr. Tetsuka, Mr. Hata and Mr. Nagashima.**

***3 These lectures will be given or instructed by the Mr. Lu Zuliang.**

***4 These events will be prepared and guided by the host.**