

Overview of The Measurement System about Mass Standard in Thailand

Training Course on Mass Standard 30 August- 1 September 2016 In Jakarta , Indonesia



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Organizational Structure



Ministry Of Commerce

Department Of Internal Trade

Bureau of Weights and Measures
(Central Bureau of Weights and Measures)

**The Northern
Weights and
Measures
Center**

7 Branch Offices

**The Northeastern
Weights and
Measures Center**

7 Branch Offices

**The Eastern
Weights and
Measures
Center**

2 Branch Offices

**The Southern
Weights and
Measures
Center**

5 Branch Offices

Organization Structure



The Northern Weights and Measures Center



Ministry of Commerce



1. Services to be carried out for the purpose of consumer protection



2. Services which aim to promote the benchmarks of weighing and measuring instruments for consumers and industrial sector



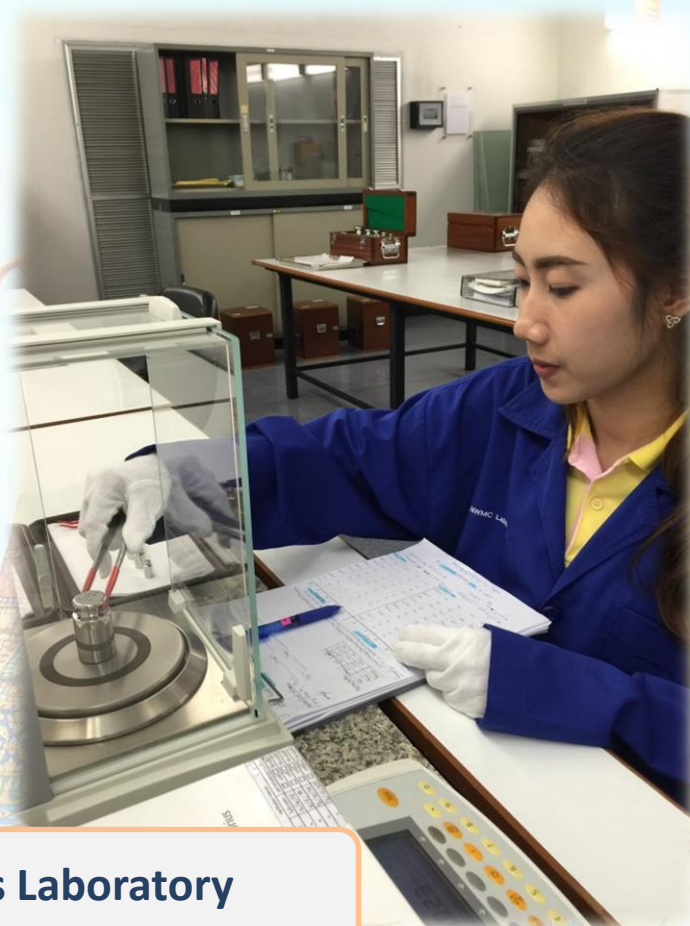
The Northern Weights and Measures Center Activities



- Inspection and testing of weighing
- Inspection and testing of packaged commodities

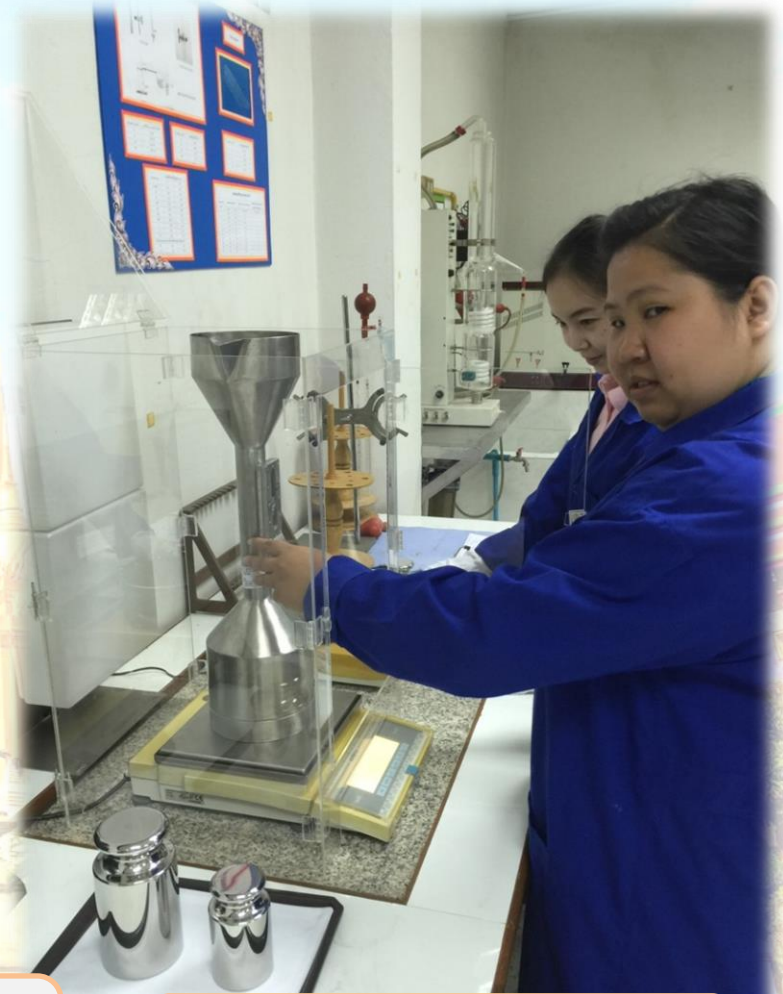


The Northern Weights and Measures Center Activities



Mass Laboratory

Perform the verification work as prescribed by the Law of Weight & Measures .



Volume Laboratory



The Northern Weights and Measures Center Activities



- Provide the calibration services in accordance with the metrological system



Calibration and Verification



Rice moisture meters



Verification of weight bridge



fuel dispensers



Mass standard

Verification every 2 years

Calibration and Verification

Verifying the weighing and measuring instruments and inspecting of such instruments in operation.



Traceability Chain (MASS): Central Bureau of Weights and Measures

มาตรฐานแห่งชาติ
(National Standard)

P80
(Pt-Ir)

แบบมาตรฐานชั้น 1
(Primary Standards)



E_1

แบบมาตรฐานชั้น 2
(Secondary Standards)



E_1

E_2

F_1

F_2

M_1

M_2, M_3

แบบมาตรฐานชั้น 3
(Tertiary Standards or
Working Standards)



Class I

Class II

Class III

Class IIII

Balances

เครื่องชั่งไม่อัตโนมัติ

เครื่องชั่งอัตโนมัติ & กิ่งอัตโนมัติ



E_1, E_2

F_1

F_1, F_2 และ M_1

F_2, M_1, M_2 และ M_3

Legal Metrology in Thailand



WEIGHTS AND MEASURES ACT B.E. 2542 (1999)

H.M. KING BHUMIBOL ADULYADEJ

Given on the 7th day of April B.E. 2542 (1999),
being the 54th year of the present reign.

BY ROYAL COMMAND OF HIS MAJESTY KING BHUMIBOL,
ADULYADEJ, IT IS HEREBY PROCLAIMED THAT;

WHEREAS it is deemed expedient to improve the law on weights and measures, which has some provisions concerning the restriction of personal rights and freedom in life and body, the restriction of freedom in dwelling place, the restriction of private rights in property, and the restriction of freedom to engage in any enterprise or occupation, free and fair competition as allowed by Sections 29, 31, 35, 48 and 50 of the Constitution of the Kingdom of Thailand to be provided in accordance with the provisions of the law.

IT IS HEREBY ENACTED by the King's Most Excellent Majesty, that all



- Maintaining and preserving the Standards of Weights and Measures.
- All Weights and Measures shall be the Metric System of Weights and Measures .

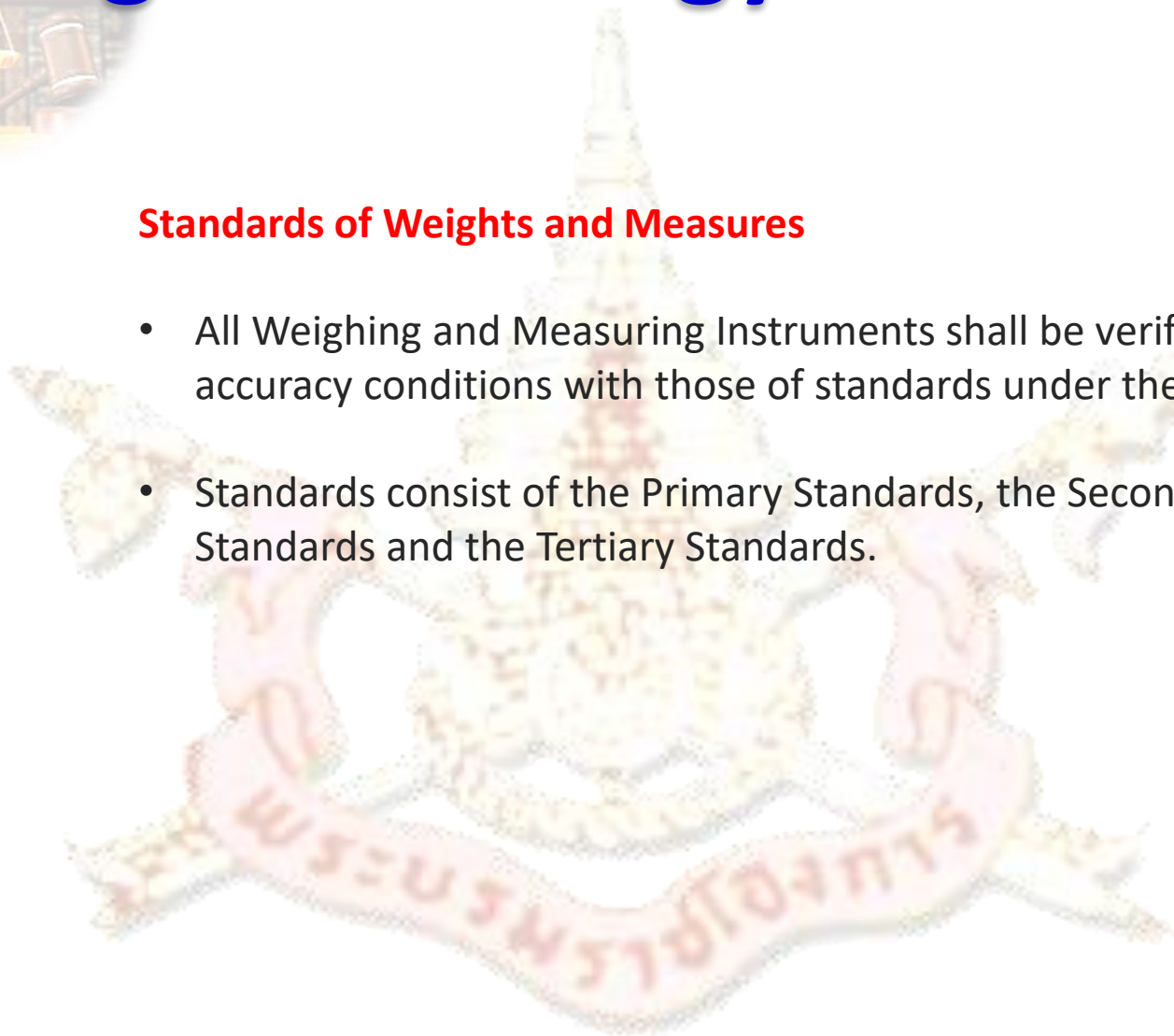




Legal Metrology in Thailand

Standards of Weights and Measures

- All Weighing and Measuring Instruments shall be verified their accuracy conditions with those of standards under the Act.
- Standards consist of the Primary Standards, the Secondary Standards and the Tertiary Standards.



Legal Metrology in Thailand

- **The Primary Standards** are the standards prescribe or certified their accuracy conditions by the international Bureau of Weights and Measures.

- 1 mg-20kg class E1
- 50 kg class E1
- 500kg class F1

Calibrate every 7 years



- **The Secondary Standards** are the standards calibrated their accuracy conditions with those of the Primary Standards.

- 1mg-20kg class E2
- 500 kg class F2

Calibrate every 5 years



- **The Tertiary Standards** are the standards calibrated their accuracy conditions with those of the Primary Standards.

- Weight Sets 1mg-20kg F1,F2
- Dish Weights 1,2,3,4,5 kg F1,F2
- 10,20,5,100,200,500 g and 1 kg M1,M2,M3
- Cast Weights 1,2,10,20 kg M1,M2,M3
- 500 kg class M1

Calibrate every 3 years



Compliance to The International Standards



In 1995 Thailand applied to be a corresponding member of International Organization of Legal Metrology (OIML)

Compliance to The International Standards



In 2007 The Northern Weights and Measures Center has accredited Laboratory



Scope

: Mass	M - F2 1mg- 20 kg
: Balance	0- 1000 kg

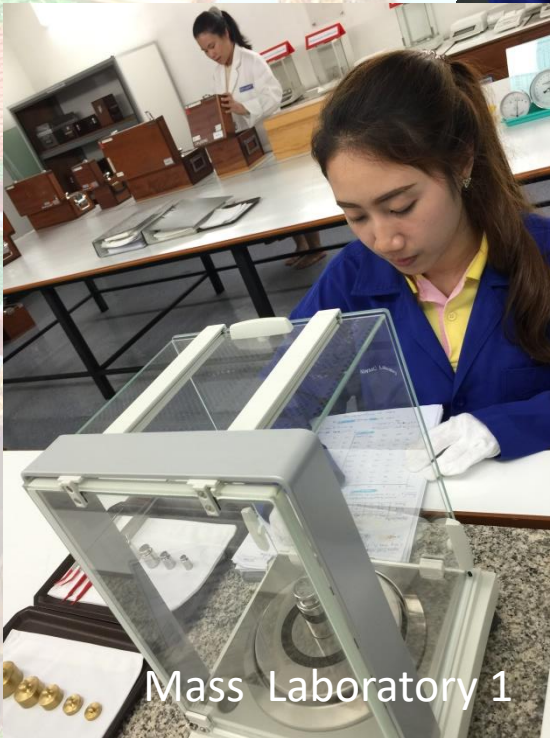
ISO 17025

ACCREDITED LABORATORY



สำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม กระทรวงอุตสาหกรรม

Compliance to the OIML R-111



Mass Laboratory 1

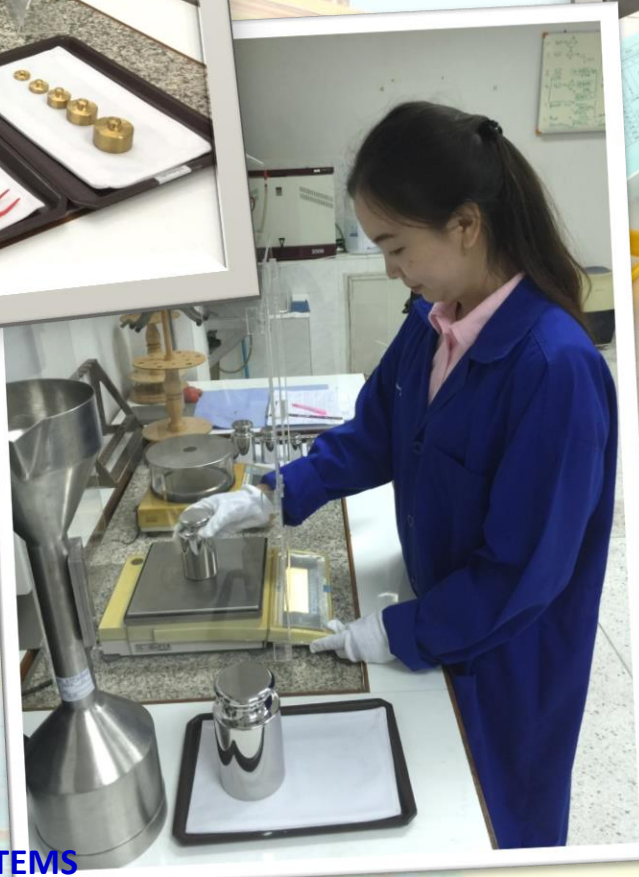
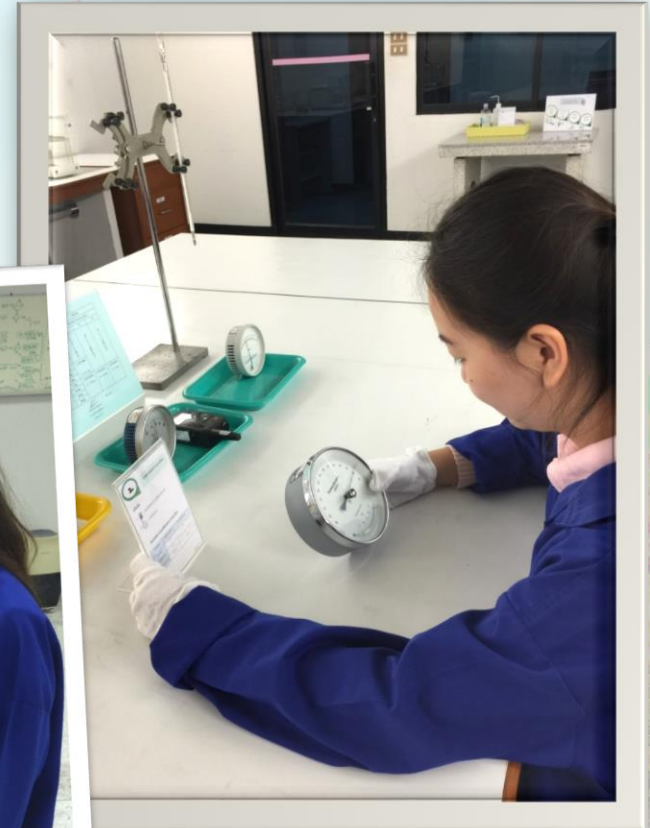


Mass Laboratory 2



Mass Laboratory 1

Compliance to the OIML R-111



These calibration services are directly traceable to the standards held by the Central Bureau of Weights and Measures.

Thank you for your attention

