




Mr. Pascal Turgeon

Measurement Canada

Presentation to APEC Workshop 2022:
Software Controlled Weight and
Measuring




Capacity Building Workshop On Understanding Conformity
Requirements For Software Controlled Weight And Measuring
Instruments For Sustainable Trade 2022

APEC

Canadian Participants to this Workshop:

- **Adnan Rashid:**
 - Senior Engineer, responsible for electricity
- **Ron Peasley:**
 - Senior Engineer, responsible for gravimetry
- **Daljit Dhaliwal:**
 - Senior Laboratory Scientist, pattern approval
- **Pascal Turgeon:**
 - Senior Program Officer, responsible for gravimetric issues





Background

- Canadian federal government has regulated trade measurement for nearly 140 years.
- The first **Gas Inspection Act** was established shortly after Confederation (1867).
- It was followed by the **Electric Light Inspection Act**.
- Weights and measures enforcement has been in existence since Confederation, with the first **Weights and Measures Act** receiving Royal assent in 1871.



About Measurement Canada

- Measurement Canada is a Special Operating Agency (SOA) within the department of Innovation Science and Economic Development (ISED).
- We administer and enforce:
- **Electricity and Gas Inspection Act;**
- **Weights and Measures Act; and**
- Their related regulations and specifications.

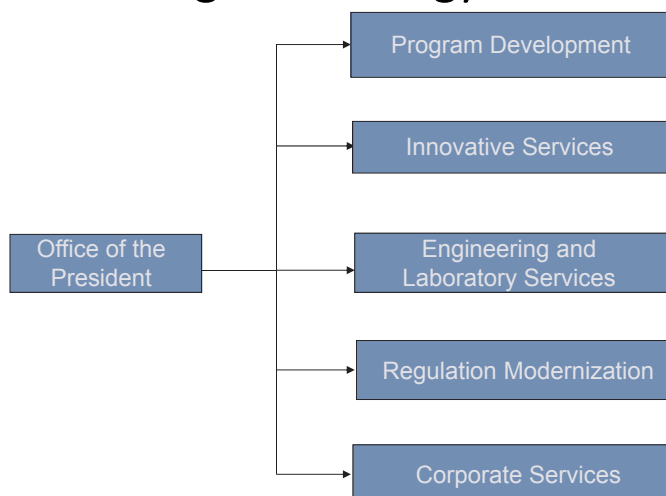




Measurement Canada



Canada's legal metrology structure



APEC
Asia-Pacific
Economic Cooperation

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Regional Operations

Measurement Canada at a glance

300 staff
15 district offices
162 authorized service providers

Western Region (70)

Ontario Region (80)

Eastern Region (70)

HQ (80)

Canada

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Activities

- Develop rules and requirements;
- Approve devices for use in Canada;
- Administer programs for initial inspection and periodic reverification of devices to ensure measurement accuracy is maintained;
- Accredite private sector companies to perform inspections;
- Investigate business and consumer complaints of suspected inaccurate measurement;
- Certify measurement standards.

Canada

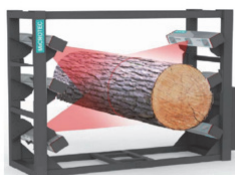
Electricity and Gas Types of Devices

- Electricity meters.
- Instrument Transformers.
- Electric vehicle charging station (under development).
- Natural gas meters.

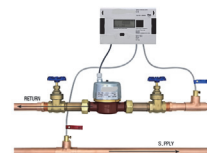


Weights and Measures Types of Devices

- Scales or scale components used at retail and wholesale levels of trade.
- Dimensioning measuring devices (MDMD and TDMD).
- Gasoline pumps and refuellers.
- Bulk petroleum meters.
- Thermal energy metering (**NEW**)



Typical dimensioning beam arrangement / Configuration typique des capteurs de dimension





Status of software requirements for pattern approval

- For **electricity and gas devices**, the software requirements are documented in [S-EG-05](#) for software control and [S-EG-06](#) for event loggers. (These 2 documents are mainly based on OIML D-31 (2008))
- For **weights and measures devices**, limited software requirements from D31 and Welmec 7.2 have been introduced for certain device types but further implementation is needed. This is a reason why we are here today!

