

Best Practices of CIPM MRA in Korea

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Korea Research Institute of Standards and Science 

DSME – BP, USA (2002)

- *DSME : Daewoo Shipbuilding & Marine Engineering, Co.*

Claim & Problem

- Offshore plant order by BP, USA.
- **Calibration traceable to NIST required.**
- **Since all calibrations in USA takes more than 2 months, it is impossible to meet the due date.**

Solution

- DSME, accredited by KOLAS, a member of ILAC MRA, keeps maintaining its own standards traceable to KRISS.
- KRISS and NIST are all signatory to the CIPM MRA.
- **NIST confirmed** that “**traceability to KRISS is equivalent to traceability to NIST**” via the CIPM MRA.
- **BP accepted** the certificates traceable to KRISS issued by DSME.



[DSME offshore plant]

Benefit

- **DSME successfully met the requirements of BP without delay.**
- if 2 month delay, penalty would be **US\$ 10 million**



**Coming over
technical barrier
to trade**



**Economic benefits
to
global enterprises**

SHI - SEIC, Russia (2003)

- *SHI : Samsung Heavy Industry*
- *SEIC : Sakhalin Energy Investment Company*

Claim & Problem

- SHI constructing an offshore platform ordered by SEIC, Russia.
- **All the measuring instruments installed in the platform required to be traceable to national measurement standard of Russia.**
- **It would take more time if they are calibrated in Russia.**

Solution

- KRISs and VNIIMS participate in the CIPM MRA.
- KRISs and VNIIMS concluded a protocol recognizing the equivalence of NMS of both countries.
- **SEIC approved** all the measuring instruments of SHI traceable to KRISs as traceable to VNIIMS.

Benefit

- **SHI successfully met the requirement of SEIC.**
 - Additional 3 months of delivery & Calibration
 - Possible penalty due to delay of delivery



[The dimensions of the platform is approximately 95 m x 130 m x 120 m]

POSCO – India, Mexico (2004)

- *POSCO: Pohang Steel and Iron Company*
- *BIS: Bureau of India Standard*

Claim & Problem

- Mexican manufacturer of automobile parts demanded the proof of reliability of POSCO steel.
- Indian buyer of POSCO steel **required the certification from BIS.**
- **It takes more time if they are retested in India**

Solution

- POSCO's testing laboratory had been accredited by KOLAS, a member of the ILAC MRA.
- **POSCO has a traceability to KRISS participating in the CIPM MRA.**
- **POSCO's steel accepted** without being retested in India and Mexico.

Benefit

- **Period to test has shorten and fee for test has been saved.**
 - Cost in transportation/retesting at Mexican and Indian labs
 - Cost due to delay in delivery

KA – FAA, USA (2008)

- *KA : Korean Air*
- *FAA: Federal Aviation Administration*

Claim & Problem

- According to **US Repair Station Act**, **US FAA required KA to secure calibration certificates traceable to NIST.**
- **It would take more time if all the instruments are calibrated in USA.**

Solution

- KRISS and NIST participate in the **CIPM MRA.**
- **FAA accepted** all the KA measuring instruments **traceable to KRISS as traceable to NIST.**

Benefit

- **KA has been successfully designated US Repair Station.**

DHIC - Vietnam (2014)

- *DHIC : Doosan Heavy Industries and Construction*
- *KRCMI : Korea Research Center for Measuring Instruments*

Claim & Problem

- DHIC constructing thermal power plants in Vietnam as a subcontractor
- When performance test carry out after construction, US contractor requested that all the measuring instruments used in the test have to be **traceable to NIST**.

Solution

- The instruments were calibrated in the both KRISS and KRCMI, one of KOLAS accredited calibration lab which maintains its traceability through KRISS.
- **US contractor accepted** the traceability to KRISS by the virtue of CIPM MRA.

Benefit

- **DHIC took performance test and more than 1 billion USD project has accomplished successfully.**



[Thermal Power Plant]

Fine Instruments - USA (2015)

Claim & Problem

- Fine Inst., a SME in Korea, manufactures measuring instruments as an OEM supplier.
- US buyer requested evidence that Fine Inst.'s clamp meter is **traceable to NIST**.
- **It would take more time if all the measuring instruments are calibrated in USA.**

Solution

- The clamp meter was calibrated in KTL, one of KOLAS accredited calibration lab which maintains its traceability through KRISs.
- **Fine Inst. verifies its traceability to NIST** since the both NMIs are participating CIPM MRA.

Benefit

- **Fine Inst. would supply the clamp meter to US buyer (on-going discussion).**



[Clamp Meter]