

# *ISO Harmonization of NDT practices in Malaysia*

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## *Objective*

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- To share on the effort of ISO harmonization of NDT practices in Malaysia in accordance with ISO 17020 (accreditation of NDT laboratories) and ISO 17024 (accreditation of NDT Certification Body).

# *Why Harmonize?*

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- Many method of NDT
    - 11 established/common methods
      - RT, UT, PT, MT, VT, LT, EC, IR, AE, VA, NRT
  - Vast scope
    - integrity/quality assurance
      - Pipeline, piping, structural, pressure vessel, tank, etc
  - Management of NDT
    - Management of the organization
    - Personnel qualification
    - Equipment
    - Procedures/Instruction/code and standards
  - NDT value added though ISO
    - Product & service quality
    - safety, reliability, efficiency, repeatability & traceability
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# *NDT Personnel Qualification in Malaysia*

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- NDT personnel qualification
  - ASNT, PCN, CSWIP, ACCP, MLVK/JPK
  
- Radiography
  - Under control of Malaysia Law (Atomic Energy Licensing Act and Regulations; ISBN 967-70-1099-9)
  - Shall possess minimum MLVK/JPK level 1 or
  - ASNT level II
  
- Other method
  - Will be promoted in line with MS ISO

## *Codes & Standards*

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- > 90% design code dominated by ASME/API/AWS
- ASME V accepts National or International central certification program
- AWS D1.1; conformance with the current edition of the American Society for Non-destructive Testing Recommended Practice No. SNT-TC-1A

# *Route to ISO Harmonization*

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## 1. Having recognized NCB

Jabatan Pembangunan Kemahiran (JPK)

## 2. Membership of APCNDT and ICNDT

ICNDT 2005 / APCNDT 2006

## 3. Certification scheme in accordance with ISO 9712

Training houses: MNA/SIRIM/TATI

## 4. NCB conformance to ISO 17024

In the progress of accreditation.

## 5. NCB accredited by IAF recognized body and scheme accepted by APCNDT

Will be audited at 1<sup>st</sup> half 2010

## 6. Application for recognition & Endorsement for mutual recognition

To be endorsed by 2012.

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# *Contribution Towards Harmonization*

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- **DSM**
    - Permanent member of ISO TC 135 year 2007
    - Next meeting at Moscow year 2010
    - Representative
    - DSM → SIRIM → NDT TC
  
  - **PETRONAS**
    - Licensing requirement
    - Technical briefing
    - Technical committee for developing MS ISO
  
  - **SIRIM/MNA**
    - Mandate from DSM to lead in developing MS ISO
    - Complete MS ISO RT and MS ISO PT
    - Next MS ISO MT and MS ISO UT
  
  - **Others**
    - JPK, Universities, Research Center, GLC, NDT service providers, Fabricators, Training Houses, and End User
      - Provide technical input & expertise
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## *Conclusion*

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- Accreditation of JPK to ISO 17024
  - Commitment from Malaysian NDT service providers to consider Malaysian Certificate as their first choice.
  - A complete MS ISO for NDT will be available in a very near future.
  - NDT practices in Malaysia will be harmonized to ISO in year 2012
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# *Appreciation of Making Malaysian NDT Standards Accessible and Reliable*

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1. AIROD Sdn Bhd
2. Jabatan Pembangunan Kemahiran
3. KNM Process Systems
4. Malaysian Nuclear Agency (Nuklear Malaysia)
5. Malaysian Society for NDT (MSNT)
6. Malaysian Iron and Steel Industry Federation (MISIF)
7. MJ Inspection Consultancy Sdn Bhd
8. Oilfield Pipeline Inspection Sdn Bhd
9. Prescan Sdn Bhd
10. Ruane-TATI Sdn Bhd
11. SIRIM Berhad (Chairman)
12. SIRIM Berhad (Secretariat)
13. Tenaga Nasional Berhad (TNB)
14. Universiti Kebangsaan Malaysia (UKM)
15. Vickers Hoskins (M) Sdn Bhd
16. PETRONAS

**THANK YOU**