



## Project Planning Meeting, Goa, India, 2-6 July 2007



IAEA/RCA NDT Project Planning Meeting held in Goa, India in 2-6 July 2007. The recommendations of the meeting are summarized as:

- IAEA shall provide interactive training materials (CD).
- Member states will contribute to regional newsletter with Mr. Yong-M Cheong as editor. This has to be issued every three months.
- Development of question database to be given priority. Issue to be raised with the APCNDT at the World Conference for NDT at Shanghai in August 2008. Mr. Isaac Einav to contact Mr. R. Murphy and Mr. D. Marshall with respect to

assistance in obtaining access to the question database.

- It is strongly recommended that the position of designated Technical Officer, NDT at the IAEA be retained. This was unanimously supported by the meeting participants of the Project Planning Meeting at Goa, India.
- All participants requested the Technical Officer to coordinate a consultants' meeting on evaluation, assessment and marking guidelines for certification examination.
- IAEA will provide Tech Doc (revision of NDT of concrete structures) to the Member States.
- Each member states to provide a list of regional experts in advanced radiography to Mr. Yong-M Cheong for publication.
- Copies of the report of the Meeting in Auckland, NZ in November 2006 to be distributed to all the Member States.
  - Selected countries (Mongolia, Thailand, Myanmar, Indonesia and Vietnam) should be provided with expert assistance to assist National Executive Management on standardization and harmonization of advanced NDT practices and certifications.
- The Project Planning Meeting (PPM) accepted the proposed project to be named as "Application of Advanced Industrial Radiography in Industry and Civil Engineering" for the project cycle 2009-2011. The Project will include:
  - Advanced Radiography Techniques for Concrete Structures
  - Continuation of the Training Courses for advanced digital and computed radiography
  - Develop Regional Training Centres for Advanced Radiography
  - Implementation of Harmonization of Personnel Certification Schemes to ISO 17024 by all Member States.

## 2007 Nondestructive Testing Success Story

**Nondestructive Testing Project strengthen personnel capability and ensuring technology sustainability in the RCA region**

Nondestructive Testing (NDT) is a very effective tool for enhancing the safety, quality, reliability and productivity of industrial plants. It is applied by all countries in the region. However, reliable NDT

results can only be obtained if the technology is handled by competent personnel. Before 1980, with the exception of few countries, only very few competent local personnel were available within the RCA member states. As a result, NDT services have to be imported at a very high cost. Many industrial plant owners choose either to employ incompetent NDT practitioners that provide unreliable services or leave the plant un-inspected over a period of time.

The launching of NDT project by IAEA/RCA in early 1980<sup>th</sup> has brought a great change to the quality of NDT practices in almost all RCA member states. Before the launching of this project, only very few countries, namely Japan, Australia, New Zealand and Korea have their own qualification and certification scheme that allow production of competent personnel. Through this project, about 300 personnel from 14 member states were trained and qualified in various NDT methods and level.

The IAEA/RCA trained personnel in turn formed their own project team in their respective country working for the establishment of training and certification program. As a result, currently, all countries in the region with the exception of Myanmar already have their own qualification and certification body for NDT personnel. To date, these Bodies have trained and certified a total amount of more than 20,000 personnel in the RCA regions in accordance with an international standard ISO 9712. Thus, in addition to creation of new employment opportunity, all member states have achieved self-reliance in this technology. In all, the project has resulted in great improvement of safety, quality, reliability and productivity of industrial plants in all member states. Industries benefited from this achievement include oil and gas, power generation, chemical and petrochemical, automobile, aviation and construction.

All member states are now moving ahead toward harmonizing their certification practice within the region. The IAEA/RCA continue to support this activity by providing guidelines for harmonization and expertise that allow all Certification Bodies in the region to be accredited in accordance to ISO 17024. It is expected that by the end of 2010 90% of RCA member states will be able to become parties of an agreement for mutual recognition of NDT certificate within the region. This is a big achievement in term of harmonizing NDT practices.



### News from ICNDT

The 5<sup>th</sup> International Conference “Certification 2007” is being held in Berlin, Germany on 26/27 September 2007 and Australia’s delegate to RAS/8/105, David Barnett, will be presenting a paper on “Harmonization of Certification Schemes in SE Asia “. Certification 2007 aims to promote a dialogue between accreditation and certification bodies to improve procedures for the certification of non-destructive testing personnel. It is hoped that the event will overcome existing differences that are currently affecting the affiliation of ISO9712 and EN473 standards. A report on this conference will be presented in the next issue of this newsletter.



### News from RCA Countries

#### Australia:

Australia’s National Certification Body has developed the syllabus and competencies required for certification of personnel involved in the tank floor testing of above ground storage tanks in oil refineries. This new sector will be in accordance which covers the qualification of NDT personnel involved in limited inspection, such as the use of automated techniques.

This was introduced successfully by AINDT’s certification Board in 2006. Two examinations are required, one theory and the other practical, the latter at selected examination centres due the size required of the test samples used for practical examinations. Guidelines for certification were based on API653 appendix G and it is believed that this is the first instance in the world of certification of personnel for testing tank floor bottoms using magnetic flux leakage and other proprietary equipment. Standards Australia will also be issuing the first standard ever to cover testing of testing of the floors of above ground storage tanks.



Mr. David Barnett from Australia sent us a photo of North Wollongong Beach, which is one of the many beautiful sandy beaches in Wollongong, Australia. Mr. Jamaluddin and his colleagues from Pakistan stayed at a hotel near this beach when they came to Australia last October when AINDT assisted the Pakistan Atomic Energy Agency (PAEC) in the development of a quality management system to ISO 17024.

## Indonesia:

Reconstruction of National Certification Board almost completed. Promotion of the important of harmonization of certification and qualification of NDT personnel based on ISO scheme have been conducted in August 23 and 24th, 2007. This meeting was attended by participants from Indonesian Welder Association, Ministry of Energy and Minerals Resources and NDT Company Association. As a conclusion from NDT NPC in Goa Meeting, expert assistance from the Agency is expected to be involved in promotion of harmonization of certification and Qualification NDT personnel to the stake holders, in November 2007.

## Korea, Republic of:

### **KOICA-RCARO Training Course on Training Instructor for NDT**

2007 KOICA-RCARO Training Course on Training Instructor for NDT held in Daejeon, Korea in 30 August-September 19 2007. This Course is sponsored by KOICA (Korea International Corporation Agency) and RCARO (RCA Regional Office). 16 participants from 13 countries including Bangladesh, Cambodia, China, Fiji, Indonesia, Iraq, Kazakhstan, Myanmar, Nigeria, Pakistan, Philippines, Sri Lanka, and Vietnam will be invited to Korea. This program was organized for three consecutive years (2006~2008).

### **Special Conference in commemoration of the 50th Anniversary of the IAEA in Seoul on 12 July 2007**



As a part of worldwide celebration of the 50th anniversary of the establishment of the International Atomic Energy Agency (IAEA), an International Conference will be held on 12 July 2007 at Grand Intercontinental Hotel in Seoul, Korea, under the theme of 'Nuclear Technology for Development'. Dr. Mohamed ElBaradei, Director General of IAEA, will give a keynote speech at the Conference.

This year marks the 50th anniversary of the establishment of IAEA. In this meaningful occasion, the Republic of Korea, as one of the faithful Member States of the Agency, organized various celebratory events in the country. The Conference is the most highlighted event among others. Other events include the

international conference on the radiopharmaceuticals with emphasis on the advances in hospital radiopharmaceutical practices to support growing requirements for radiation oncology, the international seminar on nuclear power with focus on the considerations when launching a nuclear power programme in the developing country, an exhibition on 50 years of cooperation between the Agency and the Republic of Korea. These events are being organized by the Government of Korea in co-operation with the IAEA.

At the International Conference on Nuclear Technology for Development, Mr. Kun-Mo Choi, Director of the RCA Regional Office (RCARO) will make a presentation on the major activities of the RCARO for the benefit of the RCA Member States and the region. It is also noted that at the Conference, a lot of experts from the RCA Member States will participate. The National RCA Representatives of the Bangladesh, Mongolia, Pakistan, the Philippines, Sri Lanka and Thailand are among others. Mr. M. P. Salema, Director, Division for Asia and the Pacific, Department of Technical Co-operation of the Agency will also participate in the Conference.

## Malaysia:

### Regional NDT Development-IAEA Recognize the Role of Malaysia



Director General of IAEA Dr Mohamad El Baradei answering questions from members of public during his lecture at the KLCC. Next to him is Prof. Normaiy Muslim, the Chairman of the Atomic Energy Licensing Board.

The Director General of the International Atomic Energy Agency (IAEA), who was also the winner of Nobel Prize, visited Malaysia upon invitation by the Foreign Ministries. Series of lectures were organized to update Malaysians on various issues and most notably on the issue of Nuclear Power. In one of the lecture entitled “Nuclear Power-Looking to the future that was delivered on 18<sup>th</sup> July at the Kuala Lumpur Convention Centre, Dr. ElBaradei has expressed his recognition and appreciation on Malaysian collaboration with the IAEA in organizing various conferences, workshops and training courses in the field of nondestructive testing as well as on other nuclear related fields. In his speech Dr. ElBaradei stated that “Malaysia plays an important role in hosting conferences, workshops and training courses in areas such as non-destructive testing, radiation safety, tissue grafts, regional electronic networking and the maintenance of nuclear instruments”

### Qualification and Certification of NDT Personnel in Malaysia.



Members of Trade Test Panel representing Department of Skill Development, Malaysian Nuclear Agency, SIRIM and TATI attending the meeting.

Members of Trade Test Panel for Radiography have had their meeting on 18<sup>th</sup> of July 2007. The main objective of this meeting was to finalize some of the national examination results for RT1 and RT2 that were conducted few weeks earlier at the Malaysian Nuclear Agency. In addition to this, panel members have also discussed matters related to increasing the number of level 3 personnel to sustain the certification activities in anticipation for retirement of some senior personnel, increasing the number of examiners, revising national standard parallel with the latest revision of ISO 9712 version 2005.

## Mongolia:

The RAS/8/105 project implementation team of Mongolia was conducted of UT Level-2 NTC from 1 to 15 August 2007 at NDT Centre of MUST. In case of Mongolia, it was first NDT NTC conducted as per new 2005 edition of ISO 9712 standard. In this course were attended 11 engineers from Mongolian Airlines, Mongolian Railways, Metal working company GANKHIITS LLC and other companies related with NDT business. Qualification examinations were conducted, except practical and printed of attendance certificate for participants. The participants will be eligible for certification upon fulfillment of requirements of ISO 9712 standard on industrial experience for candidates of UT Level -2 certification.

## Pakistan:



### Role of NCNDT

NCNDT is a capability building organization because it is a:

- National NDT Training Centre
- National NDT Certification Body
- Provider of testing service in NDT
- Provider of NDT equipment calibration service
- Third party inspection and evaluation agency
- Focal point for participation in IAEA activities related to NDT
- Centre for providing educational institutions
- Supporter of Pakistan Society for NDT (PASNT)



### IAEA PROJECTS for COLLABORATION

#### » TECHNICAL COOPERATION PROJECTS

- **PAK/8/011:** NDT Equipment Calibration and Concrete Testing
- **PAK/8/013:** Non-Destructive Evaluation of Pressurized Components and Concrete Structures
- **PAK/8/015:** Development of In-Service Inspection (ISI) Facilities for Nuclear Power Planes
- **PAK/4/046:** Development of Capabilities for Automated Ultrasonic Testing and Corrosion Monitoring for Integrity Assessment

#### » RCA PROJECTS

- **RAS/08/085:** Non-Destructive Testing and Evaluation
- **RAS/08/100:** Advanced Industrial Radiography
- **RAS/08/105:** Development and Application of Advanced Industrial Radiography and Tomography Techniques

#### » COORDINATED RESEARCH PROJECTS

- **CRP No. 11310/RO:** Standardization of Non-Destructive X-Ray Fluorescence (XRF) Alloy Analyzer for In-Service Inspection
- **CRP No. 122275/RO:** Standard protocols of Test: NDT Radiographic Examination for Determination of corrosion and Deposits Pipe Having Diameter Larger than 150mm.
- **CRP No.14223/RO:** Development of Simple and Low Cost Digital Industrial Radiography (DIR) Techniques for Specific Applications

## Philippines



Left picture shows our current NDT training being conducted for Lufthansa Technik Aircraft Inspectors by the Philippine Nuclear Research Institute (PNRI) and in collaboration with the Philippine Society for Non-Destructive Testing (PSNT).



**List of National NDT Project Coordinators**

**RAS/8/185 NATIONAL NDT PROJECT COORDINATORS**

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