



Future of NDT in the Asian Region

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Abstract

Dr. Baldev Raj, Director, Materials, Chemical & Reprocessing Groups of the Indira Gandhi Centre for Atomic Research, Distinguished scientists and Hon. members of ICNDT, other distinguished scientists, special invitees, members of the Indian society for Non Destructive Testing, friends, ladies and gentlemen, it is my great pleasure and privilege to have an opportunity to participate in this conference. On behalf of the Atomic Energy Authority of Sri Lanka and the Sri Lanka society for Non Destructive Testing, I wish to thank the Indian society for Non Destructive Testing for inviting me to deliver a key note address at this conference and Sri Lanka considers this as a recognition of the success of the NDT programme of the Atomic Energy Authority of Sri Lanka.

Sri Lanka initiated its Non Destructive Testing (NDT) Programme in early 1980's. As a result of several activities implemented during the last few years, the Atomic Energy Authority (AEA) has been able to develop its capabilities to cater to the national demand of NDT training. National experts in the fields of Radiography Testing (RT), Ultrasonic Testing (UT) and Surface Testing (SM) have been established and Level III ISO certification capability has been developed in all five methods. (RT, UT, ET, MT, PT). Over 750 personnel participated in the training courses conducted by the AEA during the past ten years. Reached The NDT certificate issued by the AEA has received wide recognition. A large number of trained technicians and engineers has been able to find employment opportunities in Sri Lanka and abroad. This has contributed to the country's foreign exchange earnings.

The NDT technology has been transferred to end-users. A considerable demand for NDT inspections has been created in small and medium scale industries. Many new NDT service companies have been started. Most of the owners of these companies were the trainees of the AEA. Some of these private enterprises now undertake foreign NDT jobs by extending their services to overseas.

The Society for NDT was established in 1985. Presently, it has a membership of 162 who actively participate in promotional activities, public seminars and exhibitions.

Sri Lanka received considerable amount of Technical Assistance by means of equipment and experts from IAEA. Experts from India, Bangladesh, Malaysia and Australia participated in our NDT programmes.

In spite of the constraints faced owing to lack of proper laboratory facilities, the NDT programme has been able to achieve considerable progress due to the dedication of NDT staff of the AEA. Recognizing the commitments, the Governments of Sri Lanka allocated funds to construct laboratory complex. The new laboratory complex is now complete and offering its services.



**Presented at NDE2002, to predict. assure. improve. www.nde2002.org
National Seminar of ISNT, the Indian Society for Non Destructive Testing
Hotel Taj Connemara and Raja Muthiah Hall, Chennai, 05. – 07. 12. 2002**

AEA presently conducts about 25 NDT inspections and 4-5 training courses per year. About 100 personnel are trained annually. The NDT programme has been one of the main income generators of the AEA. A programme on NDT in concrete and use of eddy currents for tube testing has been commenced. It is expected to increase the capability to undertake 75 inspections per year, to train 200 personnel per year and further promotion of existing programmes and development of using more advanced technologies.

Almost all the countries in the region now have their own NDT laboratories, NDT societies, equipment and personnel as per their needs. The importance of the NDT techniques and their advantages have been realized. The experience gained by these countries was shared by conducting National Training Courses, Regional Training Courses, Workshops and Conferences. It was seen at the meeting of 14 national coordinators of Asia Pacific region met in Colombo in November 2000 that these countries need further promotion of NDT and strongly recommended several areas.

These are harmonization of the level of NDT laboratory quality and practice for accreditation in accordance with ISO 17025, development of a common quality system for the NDT certification bodies, fabrication of standard test pieces for training and examination, testing of concrete structures and non-metallic materials, and testing of castings.

There is an interest on Advanced NDT techniques such as Digital Signal Processing, Digital Imaging, Micro-focus and digitization of conventional RT, Flash Radiography, computed tomography, tube inspection and Fracture Mechanics.

Visual testing, Leak testing and Acoustic Emission Testing are 3 new methods for Regional training. It has been emphasized that the appropriate way to develop these fields is through regional co-operation by sharing experience, knowledge and resources available in the countries. The improved awareness of the benefits and safety of NDT technology among industrialists is needed.

On the other hand, national nuclear institutions are required to earn more commercial revenue in order to be less dependent on Government funds and to achieve self-reliance and sustainability. As NDT is a good income generator, institutions need its further promotion.

Therefore, it is needed to plan out programmes to be implemented in next few years through national nuclear institutions, NDT societies and certifying bodies of the countries. In this concept, India could play an important role to develop suitable programmes as India is one of the Regional resource units for technology so that South Asian countries can share her experience effectively.

I hope that NDE-2002 conference will provide an opportunity for identifying areas of mutual co-operation between other countries and India. Wishing more future co-operation between Sri Lanka and the Indian society for Non Destructive Testing, I wish to conclude my address. Wish you all success. Thank you.