Editorial

Non-Destructive testing (NDT) has a number of essential roles to play in making certain the through-life quality and reliability of many essential oil and gas assets whose integrity is of paramount importance. The traditional role of NDT in quality control during manufacture – mainly in defect detection - has been complemented in recent years with increasingly important inspections in-service on plants and equipment at varying stages through life. The correct application of NDT can prevent accidents, save lives, protect the environment and avoid economic loss. To achieve these objectives there is a need to manage NDT operations to ensure that they can be relied upon by the designers and engineers who require their use. Many of the necessary controls are available through the "NDT infrastructure" which has been established in many countries comprising of research and development, national standards, training courses, personnel certification, third party inspections etc. These infrastructures are quite sophisticated and most complete in the manufacturing quality control area of NDT, particularly in those geographical areas where international certification of quality assurance demands that comprehensive systems are in place.

As the world's trade rapidly becomes more liberalized, NDT infrastructures which were originally national in their coverage have become international. For example, national standards for NDT in individual countries in our region are being superseded by Asia - Pacific standards and international standards.

Quality in execution of NDT operations demands awareness to a series of interlinked aspects extending from research and development, codes and standards, equipment, personnel training and certification to the effects of human reliability and the influence of auditing and surveillance. These aspects can be represented as links in a chain. The chain will only be as strong as its weakest link. Extra attention to one link in the chain cannot compensate for lack of attention to another; just as a strong link in a chain cannot compensate for a weak link.

National and international standards, for instance ISO 9001, require management to establish quality systems to control all activities which affect quality including NDT. The quality system in place must address each of the links in the NDT quality chain so as to ensure that all the links are in place and properly joined.

Other legislations, codes and practice and good specialized performance all oblige users of NDT and suppliers of NDT to address the ways to achieve reliability. As such an update is provided on the developments of the global NDT quality infrastructure used in the oil and gas industry primarily focusing on the pipeline sector in this issue. Particular attention is paid to international developments in systems designed with the intention of achieving and assuring quality in NDT. These include developments in standards, planning and management of inspections.

This issue of the magazine focuses on these NDT operational trends that are crucial to the management of oil and gas pipelines and subsequently the preservation of our fragile ecosystem and environment. To begin with, we have aligned an interview report section which focuses on the natural gas supply by PGN and an energy analysis overview of Indonesia. This is in tune with INDOPIPE 2010 which has not lacked in the capacity to draw pipeline experts from the region and worldwide in the past. The subsequent 3 reports are from Rosen, SGS and Siemens respectively highlighting their latest achievements in their pipeline projects. The technology section begins with NDT applications of Lamb Waves and MFL. And to round this issue up, an interesting piece of technology information by Clock Spring, on the function of composites for the management of pipelines.

To conclude, as a leading publication house in the field of technological advancements for Asia's Oil and Gas Industry, we would like to reinforce our role as a noteworthy information provider. As the collective goal of our publications and conferences is to offer a platform where professionals can render their experience and enhance their knowledge and awareness, we will continue to strive to ensure quality products and services that will benefit all. Last but not least, PetroMin Pipeliner would like to convey our heartfelt gratitude to all our technical writers and readers for their contributions, encouraging comments and continued support. PP

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