

NDT IN OIL AND GAS INDUSTRIES

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International Atomic Energy Agency Scientific Forum

ATOMS IN INDUSTRY

Radiation Technology for Development

15–16 September 2015, Vienna, Austria

- Malaysia prior to 1980: economy depends on prime commodity GDP 1970 USD 3.4billion
- Percapita income



- 1970 RM1159,
- 1980 RM5412.36
- 2006 RM17243
- 2013 RM28000
- Targeted at RM45000 by 2020



- **Malaysia around 1980: economic turning point from commodity dependent to industry**
- **1980 also marked the era of oil and gas industry**
- **1980 GDP USD1802.63**
- **PETRONAS INCOME 2007:RM41.7 billions (35.4% of Total Malaysian Income)**





Platform Fabrication



Platform in Operation



Customer
Petrobras Cargill

Project type
Pipeline

Products
180,000 tons X70 PSL 2
hot rolled coil

Specials & Services
Long term agreement which
ensured the customer of timely
deliveries during the whole project
• Project management
• Document control
• Shipping & logistics
• Quality control & inspection

Sabah-Sarawak Gas Pipeline
Malaysia

Pipeline Construction



MLNG



Malaysia Oil and Gas Field



Piping in Plants



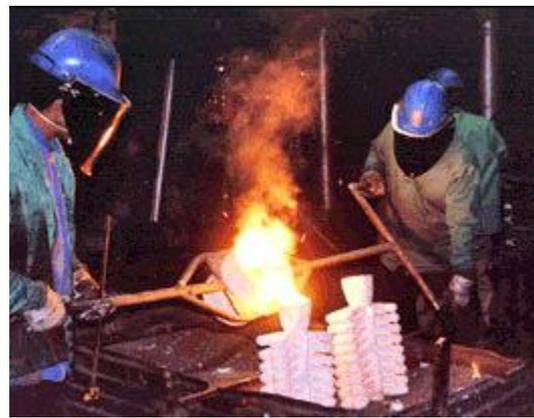
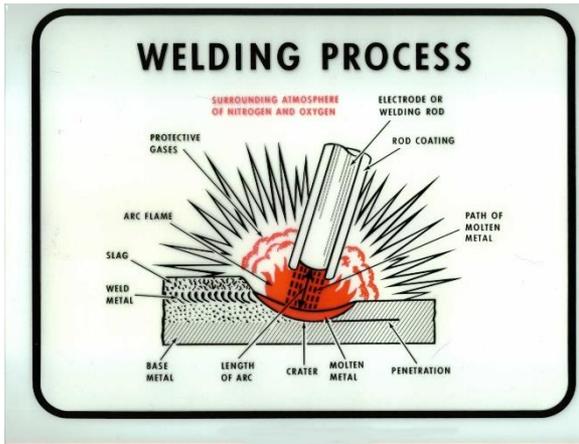
GPP Kerteh



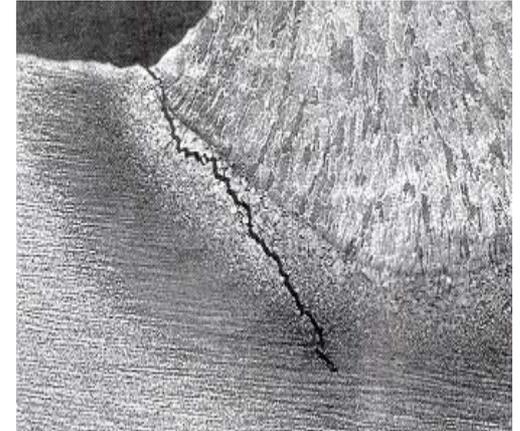
Refinery in Port Dickson



Refinery in Melaka



PROCESSES LEAD TO THE FORMATION OF DEFECTS THAT MAY CAUSE FATAL ACCIDENTS



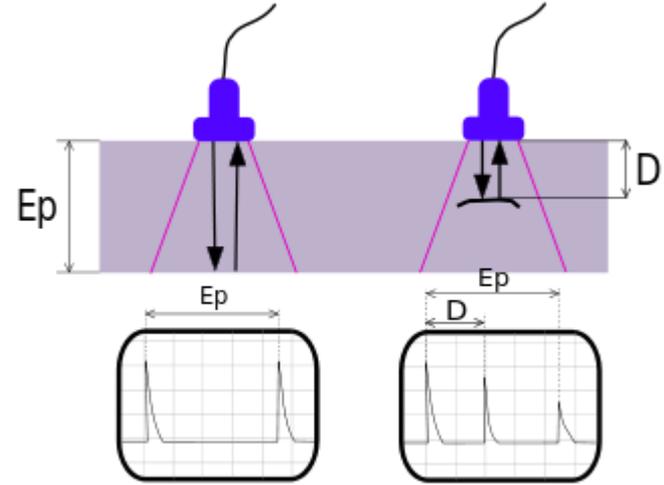
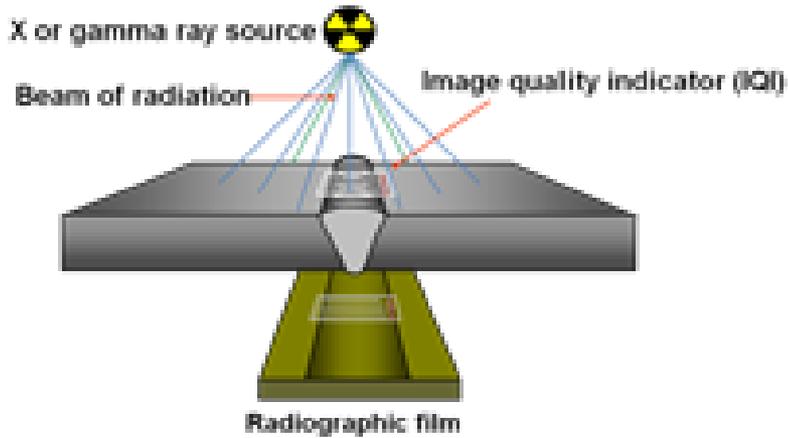
BHOPAL TRAGEDY



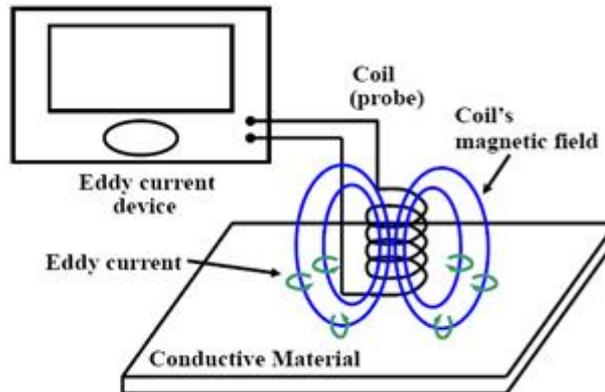
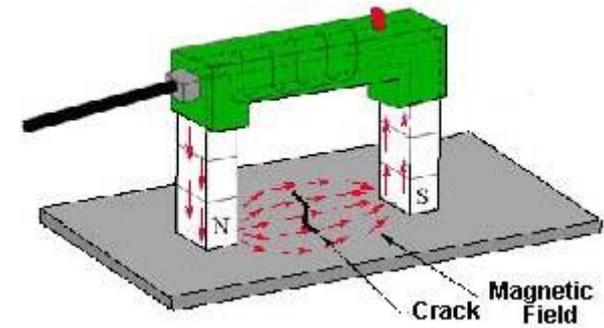
TRANSCANADA PIPELINE



OKLAHOMA EXPLOSION



NONDESTRUCTIVE TESTING (NDT) METHODS CAPABLE OF DETECTING SMALL AND HIDDEN DEFECTS



IAEA Contributions

- Development of core personnel through scientific visit and trainings
- Establishment of Qualification and Certification Scheme
- Donation of NDT equipment
- Dispatch of expert
- Establishment of NDT Societies



NDT MANPOWER DEVELOPMENT INFRASTRUCTURE





Creation of a National Certification Body

Creation of more than 5000 employment opportunity

Creation of 60 NDT companies



Overall Impact



Creation of total NDT services business of about USD350,000,000



Saving currency flow of about USD 1 billion/year



Thank you!

