



## EXAMINATION OF WELDS BY DIGITAL RADIOGRAPHY

**Ekinci Ş.**

*Cekmece Nuclear Research and Training Center, Istanbul, Turkey*

Industrial radiography is the oldest and most reliable non-destructive test method in the examination and two dimensional evaluation of weld defects. Digital radiographic methods provide more sensitive, faster and more reliable evaluation of defect images. One of the most important factors influencing the contrast and consequently the image quality is the noise on the film caused by scattered radiation. The digital image processing technique can eliminate the noise and improve the image quality. Digital radiography also enables three dimensional evaluation of weld defects. This work describes the use of digital radiography in the evaluation of defects in welds of different configurations by using a laser film digitizing system and an appropriate software programme. Advantages and limitations of the digital technique and conventional film radiography were discussed.



## CURRENT NDT ACTIVITIES AT CEKMECE NUCLEAR RESEARCH AND TRAINING CENTER

**Ekinci Ş.**

*Cekmece Nuclear Research and Training Center, Istanbul, Turkey*

Non-destructive testing (NDT) activities at Cekmece Nuclear Research and Training Center (CNAEM) has been initiated in the Industrial Application Department of the Center which was established in 1976 as the Radioisotope Applications Group for Industry. The Department started its first NDT activity with industrial radiography. The NDT activities have been developed by the support of various national (State Planning Organization (DPT)) and international (IAEA and UNDP) projects. Today, there are five basic NDT techniques (radiography, ultrasonic, magnetic particle, liquid penetrant and eddy current) used in the Industrial Application Department. The Department arranges routinely NDT qualification courses according to ISO 9712 and TS EN 473 standards for level 1 and 2 for Turkish Industry. It also carries out national DPT and IAEA Technical Co-operation projects and gives NDT services in the laboratory and in the field. Digital radiography and digital ultrasonic techniques are being used in advanced NDT applications. This paper describes the NDT activities of CNAEM.