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Simulation Studies on the Image Quality of Industrial Film Radiography

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This communication highlights investigations aimed to attain a comprehension about the Radiographic Non-Destructive Testing (RT) of water-filled pipes; with the objective of improving the radiographic quality. A radiographic Testing computational toolkit was used to simulate film radiography of a water-filled pipe having an outside diameter of 219 mm (8 inches), using Ir-192. The results showed that water significantly increases the Scattered Direct Ratio (SDR) on the film, which results in a poor sensitivity. An approach to decrease the SDR was examined; and the results indicated prospects to improve the radiographic quality. Simulation results will be used to set up experiments; to further study the proposed approach.

Country/Organization invited to participate

Sudan

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