

1.12.10. EXPERIENCE GAINED FROM MECHANIZED ULTRASONIC TESTING

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Since several decades the mechanized ultrasonic testing (UT) is applied in nuclear power industry and plants. The apparition of computer technology and its fast performance evolution and size reduction has allowed to build portable and light phased array or multi-channel UT equipment for, among other things, ultrasonic examination in tight areas of piping in nuclear power plants. The requirements of mandatory performance demonstration or requested qualification according to ENIQ rules conducted in many cases to the application of data recorded examination. Moreover the UT examination of welds in high radiation dose rate areas requires fully mechanized methods.

ALARA approach, duration of data collection, traceability of results, performances in detection rate, sizing capability and related costs will be reported in this paper from several years experience in mechanized and manual UT examination.