



**THE EXPERIENCE OF THE METAL MAGNETIC MEMORY
METHOD INTRODUCTION IN POWER ENGINEERING OF RUSSIA
AND POLAND**

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The experience of power equipment basic units (elements) complex diagnostics using the metal magnetic memory (MMM) method, ultrasonic testing (UT) and metal structure analysis is described.

It is demonstrated that stress concentration zones (SCZs), occurring due to additional (off-design) working loads, are the sources of boiler tubes, steam pipeline bends, turbine blades and disks damages occurrence and development. SCZs detection with accuracy of up to 1 mm is ensured by the use of multi-channel scanning instruments in the fast-control mode without metal dressing with recording of results in the form of magnetograms. Confirmation of MMM-inspection results is carried out using UT instruments and metal structure analysis by taking “replicas” in SCZs.