## PREPARATION TO MANUFACTURING OF ITER PLASMA FACING COMPONENTS IN RUSSIA

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Procurement of ITER plasma facing components (PFC) is coming to practical phase. There are 3 ITER procurement packages which are currently allocated for Russia: delivery of central assembly of divertor (dome and reflector plates assembly), delivery of 40 % of first wall panels and performing of high heat flux testing of divertor components during qualification and manufacturing phases. Results of qualification process of RF industry for these tasks are presented. Qualification mockups of dome divertor structure were manufactured in according with ITER specification. These mockups were successfully tested at heat fluxes exceeding operational ones, thus it was demonstrated a reliability of design and manufacturing technologies, proposed by RF industry. To demonstrate the readiness in manufacturing ITER first wall three qualification mockups were prepared and then two of them were heat flux tested at 2 independent facilities abroad. The third mockup was destructively tested at Efremov Institute to check adequacy of mockup composition (chemical composition, grain size and strength of used materials, quality and microstructure of joints and so on) to qualification specification. As part of qualification procedure on task on high heat flux testing a number of mockups were tested at TSEFEY e-beam facility. Features of this facility and testing procedure are described.

Along with passing through qualification process Efremov Institute PFC team perform a preparation of industrial facilities for serial production of above mentioned components. Brief descriptions of such facilities as material control lab, ultrasonic and X-ray control lab, brazing facilities, casting facilities, laser welding bay, dimension control facility, new e-beam high heat flux testing facility and others are presented.