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Recent Progress of ITER Package in ASIPP

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ASIPP has taken the responsibility of most CN ITER package. All packages follow current ITER schedule. The superconducting conductor package consists of 106 conductors with 6 kinds includes 7.5% TF conductor, total PF conductor from PF2 to PF5, total CC conductor, and MB and CB conductor of feeder. Now total CN TF conductor package has been completed in production, and delivered to IO; completed the production and acceptance test of CC and feeder conductor package; completed the production and acceptance test of 35 PF conductors and 4 dummy conductors.

The ITER feeder system consists of 31 units. They convey power and coolant to magnets, and hold the numerous instrumentation channels with the functioning of magnets system operation and monitoring. Now ASIPP has completed all qualification work and started manufacturing after PF4 CFT MRA meeting.

The ITER Correction Coils (CC) consists of three sets of six coils each. Each pair of coils located on opposite sides with respect to the plasma is series connected with polarity such to produce asymmetric fields. The CC PA was signed between IO and CN DA in 2010, now ASIPP has developed the manufacturing process including winding process, VPI technology, laser beam welding, helium inlet/outlet welding technology, and production qualification process is still on going.

CN power supply package consists of PF AC/DC converter, reactive power compensation and harmonic filter (RPC&HF), and pulsed power electrical network materials (PPEN). ASIPP takes responsibility of key technology R&D, all kind test, integration and technical support. ASIPP has completed AC/DC converter and RPC&HF prototype test and integration test, and started its manufacturing since 2015. Now first PF AC/DC converter unit manufacturing has been completed and qualified by IO, 15 kinds of PPEN equipment has been delivered to IO site.

ASIPP has two ITER diagnostic procurements, #12 horizontal port plug and radial X-ray camera (RXC). Port integration group has organized a system integration review meeting in July 2015 with mostly general issues be resolved or analyzed, most model clashes between tenants have been resolved. RXC's structure design is optimized and installation process is studied considering the simplification and easiness of maintenance. Remote handling skills and tools are designed for the system maintenance after being activated.

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Primary author: Prof. FU, Peng (Institute of Plasma Physics, Chinese Academy of Sciences)

Co-authors: Prof. WEL, Jing (CnIPPCAS); Prof. HU, Liqun (CnIPPCAS); Prof. WU, Yu (CnIPPCAS); Prof. SONG, Yuntao (CnIPPCAS)

Presenter: Prof. FU, Peng (Institute of Plasma Physics, Chinese Academy of Sciences)

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