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Wendelstein-7X: first experience with cryogenic system

In February 2015 began the cool-down of about 450 tons cold mass of Wendelstein 7-X i.e. 70 superconducting magnets, 14 currents leads, massive support structure and the thermal shield, enclosed within a vacuum vessel of about 15.4 m outer diameter. Since then, the components are maintained cold at various temperatures i.e. <10 K for short standby, 3.9 K for standard and 100 K for long standby modes of operation. Presently the warm-up is in progress. The details of cryogenic system and the experiences will be presented.

Summary

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